Ser Asp Met Met Gly Leu Leu Lys Thr Phe Phe Ser Cys His Lys Glu 150 155 Phe Gln Thr Val Pro Phe Tyr Ile Phe Ser Glu Ser Tyr Gly Gly Lys 170 Met Ala Ala Gly Ile Gly Leu Glu Leu Tyr Lys Ala Ile Gln Arg Gly 185 180 Thr Ile Lys Cys Asn Phe Ala Gly Val Ala Leu Gly Asp Ser Trp Ile 200 195 Ser Pro Val Asp Ser Val Leu Ser Trp Gly Pro Tyr Leu Tyr Ser Met 215 220 Ser Leu Leu Glu Asp Lys Gly Leu Ala Glu Val Ser Lys Val Ala Glu 230 235 Gln Val Leu Asn Ala Val Asn Lys Gly Leu Tyr Arg Glu Ala Thr Glu 245 250 Leu Trp Gly Lys Ala Glu Met Ile Ile Glu Gln Val Lys Arg Gly Asn 260 265 Thr Gln Arg Arg Ala Cys Leu Ala Phe Ser Gly Gly Tyr Arg Ala His 285 280 Gly Trp Cys Cys Gln Thr Trp Ser Lcu His 290 295 298

<210> 911 <211> 213 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(213)
<223> X = any amino acid or stop code

<400> 911 Pro Gly Trp Ser Arg Ser Pro Asp Leu Val Ile Arg Leu Pro Arg Pro 5 1.0 Pro Lys Val Leu Gly Leu Gln Tyr Tyr His Phe Phe Phe Leu Arg 25 Trp Ser Leu Asp Ser Val Ala Gln Ala Glu Val Gln Trp His Asp Leu 40 Arg Ser Leu Gln Ala Pro Pro Pro Gly Phe Thr Pro Phe Ser Cys Leu 55 Ser Leu Pro Gly Ser Trp Asp Tyr Arg Cys Pro Pro Pro Arg Pro Ala 75 70 Asn Phe Leu Tyr Phe Xaa Xaa Arg Arg Gly Phe Thr Val Leu Ala Arg 85 90 Met Val Ser Ile Ser Xaa Pro Arg Asp Pro Pro Ala Ser Ala Ser Gln 105 Ser Ala Gly Ile Thr Val Leu Ser Leu Phe Phe Phe Phe Glu Met Glu 120 125 Ser Cys Ser Val Ala Gln Ala Gly Val Gln Trp Arg Tyr Leu Gly Ser 135 140 Leu Gln Ala Leu Pro Pro Gly Phe Thr Pro Phe Ser Cys Leu Ser Leu 155 150 Pro Ser Ser Trp Asp Tyr Arg Arg Pro Pro Pro Arg Pro Ala Asn Phe 165 170 Phe Val Phe Leu Val Glu Thr Gly Val Ser Pro Cys Xaa Pro Gly Trp 180 185 Ser Arg Ser Pro Asp Leu Val Ile Arg Leu Pro Gln Pro Pro Lys Val 195 200 Leu Gly Leu Gln Val

210 213

<210> 912 <211> 583 <212>Amino acid <213> Homo sapiens

<400> 912 Pro Ser Met Lys Thr Gly Glu Leu Glu Lys Glu Thr Ala Pro Leu Arg 5 10 Lys Asp Ala Asp Ser Ser Ile Ser Val Leu Glu Ile His Ser Gln Lys 20 25 Ala Gln Ile Glu Glu Pro Asp Pro Pro Glu Met Glu Thr Ser Leu Asp 35 40 45 Ser Ser Glu Met Ala Lys Asp Leu Ser Ser Lys Thr Ala Leu Ser Ser 55 Thr Glu Ser Cys Thr Met Lys Gly Glu Glu Lys Ser Pro Lys Thr Lys 75 70 Lys Asp Lys Arg Pro Pro Ile Leu Glu Cys Leu Glu Lys Leu Glu Lys 85 90 Ser Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile 105 110 100 Pro Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser 115 120 125 Pro Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys 135 140 Glu Lys Leu Ala Ser Glu Lys Glu Val Val Glu Cys Gln Ser Thr Ser 150 155 Thr Val Gly Gly Gln Ser Val Lys Lys Val Asp Leu Glu Thr Leu Lys 170 Glu Asp Ser Glu Phe Thr Lys Val Glu Met Asp Asn Leu Asp Asn Ala 185 1.90 Gln Thr Ser Glv Ile Glu Glu Pro Ser Glu Thr Lvs Glv Ser Met Gln 200 . Lys Ser Lys Phe Lys Tyr Lys Leu Val Pro Glu Glu Glu Thr Thr Ala 215 Ser Glu Asn Thr Glu Ile Thr Ser Glu Arg Gln Lys Glu Gly Ile Lys 230 235 Leu Thr Ile Arg Ile Ser Ser Arg Lys Lys Pro Asp Ser Pro Pro 245 250 255 Lys Val Leu Glu Pro Glu Asn Lys Gln Glu Lys Thr Glu Lys Glu Glu 260 265 270 Glu Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser 280 285 Arg Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys 295 300 Lys Arg Gly Glu Gly Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Leu 310 315 Gln Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr 325 330 Asn Ser Lys Val Ser Lys Val Lys Pro Lys Gly Lys Val Arg Trp Thr 345 Gly Ser Arg Thr Arg Gly Arg Trp Lys Tyr Ser Ser Asn Asp Glu Ser 360 Glu Gly Ser Gly Ser Glu Lys Ser Ser Ala Ala Ser Glu Glu Glu Glu 375 380 Glu Lys Glu Ser Glu Glu Ala Ile Leu Ala Asp Asp Asp Glu Pro Cys 390 395 Lys Lys Cys Gly Leu Pro Asn His Pro Glu Leu Ile Leu Leu Cys Asp

```
405
                        410
Ser Cys Asp Ser Gly Tyr His Thr Ala Leu Pro Phe Ala Pro Pro Leu
       420 425 430
Met Ile His Pro Gln Met Gly Gly Trp Phe Cys Pro Thr Phe Cys Pro
   435 440 445
Thr Leu Asn Leu Leu Leu Glu Lys Leu Glu Asp Gln Phe Gln Asp
 450 455 460
Leu Asp Val Ala Leu Lys Lys Glu Arg Ala Leu Pro Glu Arg Arg Lys
465 470 475
Glu Arg Leu Val Tyr Val Gly Ile Ser Ile Glu Asn Ile Ile Pro Pro
      485 490 495
Gln Glu Pro Asp Phe Ser Glu Asp Gln Glu Glu Lys Lys Lys Asp Ser
       500 505 510
Lys Lys Ser Lys Ala Asn Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg
   515 520 525
Lys Cys Ile Ser Tyr Arg Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu
  530 535 540
Ala Ile Glu Asp Asp Ile Lys Glu Ala Asp Gly Gly Gly Val Gly Arg
545 550
                          555
Gly Lys Asp Ile Ser Thr Ile Thr Gly His Arg Gly Lys Asp Ile Ser
          565
                        570
Thr Ile Leu Asp Glu Glu Arg
       580 583
```

<210> 913 <211> 178 <212>Amino acid <213> Homo sapiens

<400> 913 Lys Arg Arg Gly Ser Phe Lys Met Ala Glu Leu Asp Gln Leu Pro Asp Glu Ser Ser Ser Ala Lys Ala Leu Val Ser Leu Lys Glu Gly Ser Leu Ser Asn Thr Trp Asn Glu Lys Tyr Ser Ser Leu Gln Lys Thr Pro Val 40 45 Trp Lys Gly Arg Asn Thr Ser Ser Ala Val Glu Met Pro Phe Arg Asn 50 55 Ser Lys Arg Ser Arg Leu Phe Ser Asp Glu Asp Asp Arg Gln Ile Asn 70 75 Thr Arg Ser Pro Lys Arg Asn Gln Arg Val Ala Met Val Pro Gln Lys 85 90 Phe Thr Ala Thr Met Ser Thr Pro Asp Lys Lys Ala Ser Gln Lys Ile 100 105 110 Gly Phe Arg Leu Arg Asn Leu Leu Lys Leu Pro Lys Ala His Lys Trp 115 120 125 Cys Ile Tyr Glu Trp Phe Tyr Ser Asn Ile Asp Lys Pro Leu Phe Glu 130 135 140 Gly Asp Asn Asp Phe Cys Val Cys Leu Lys Glu Ser Phe Pro Asn Leu 145 150 155 160 Lys Thr Arg Lys Leu Thr Arg Val Glu Trp Gly Lys Ile Arg Arg Leu Met Gly 178

<210> 914 <211> 158 <212>Amino acid

<213> Homo sapiens

<220>

<400> 914

<221> misc_feature

<222> (1) ... (158)

<223> X = any amino acid or stop code

Met Pro Glu Tyr Leu Arg Lys Arg Phe Gly Gly Ile Arg Ile Pro Ile Ile Leu Ala Val Leu Tyr Leu Phe Ile Tyr Ile Phe Thr Lys Ile Ser Val Asp Met Tyr Ala Gly Ala Ile Phe Ile Gln Gln Ser Leu His Leu Asp Leu Tyr Leu Ala Ile Val Gly Leu Leu Ala Ile Thr Ala Val Tyr 55 Thr Val Ala Gly Gly Leu Ala Ala Val Ile Tyr Thr Asp Ala Leu Gln 70 75 Thr Leu Ile Met Leu Ile Gly Ala Leu Thr Leu Met Gly Tyr Ser Phe 90 Ala Ala Val Gly Gly Met Glu Gly Leu Lys Glu Lys Tyr Phe Leu Ala 100 105 Leu Ala Ser Asn Arg Ser Glu Asn Ser Ser Cys Gly Leu Pro Arg Glu 120 Asp Ala Phe His Ile Phe Arg Asp Pro Leu Thr Ser Asp Leu Pro Trp 140 135 Pro Gly Val Leu Phe Gly Met Ser Ile Pro Ser Leu Xaa *

155 157

<210> 915 <211> 108 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(108)

100

<223> X = any amino acid or stop code

150

<400> 915 Xaa Ser Ala Ser Ala Thr Ser Leu Thr Leu Ser His Cys Val Asp Val 10 Val Lys Gly Leu Leu Asp Phe Lys Lys Arg Arg Gly His Ser Ile Gly 25 Gly Ala Pro Glu Gln Arg Tyr Gln Ile Ile Pro Val Met Cys Cys Ser 40 Leu Leu Ala Thr Gly Gly Ala Asp Arg Leu Ile His Leu Trp Asn Val 55 Val Gly Ser Arg Leu Glu Ala Asn Gln Thr Leu Glu Gly Ala Gly Gly 70 75 Ser Ile Thr Ser Val Asp Phe Asp Pro Ser Gly Tyr Gln Val Leu Ala 85 90 Ala Thr Tyr Asn Gln Val Ala Gln Phe Trp Lys *

105 107

```
<210> 916
<211> 45
<212>Amino acid
<213> Homo sapiens
```

4400> 916
Gin Lya Arg Phe Pro Ser Asn Cys Gly Arg Asp Gly Lys Leu Phe Leu
1 10 15
1 10 15
1 10 15
1 15
1 17
1 17
1 18
1 19
1 19
2 19
2 25
3 20
3 27
Arg Leu Gly Met Val Phe Phe Ser Leu Leu Leu Ser Tyr
3 35
4 0
4 5
4 5

<210> 917 <211> 180 <212>Amino acid <213> Homo sapiens

<400> 917 Val His Val Cys Ser Ser Lys Met Gly Ala Leu Ser Thr Glu Arg Leu 1 5 10 Gln Tyr Tyr Thr Gln Glu Leu Gly Val Arg Glu Arg Ser Gly His Ser 20 25 30 Val Ser Leu Ile Asp Leu Trp Gly Leu Leu Val Glu Tyr Leu Leu Tyr 3.5 40 4.5 Gln Glu Glu Asn Pro Ala Lys Leu Ser Asp Gln Gln Glu Ala Val Arg 55 Gln Gly Gln Asn Pro Tyr Pro Ile Tyr Thr Ser Val Asn Val Arg Thr 70 75 Asn Leu Ser Gly Glu Asp Phe Ala Glu Trp Cys Glu Phe Thr Pro Tyr 90 Glu Val Gly Phe Pro Lys Tyr Gly Ala Tyr Val Pro Thr Glu Leu Phe 105 Gly Ser Glu Leu Phe Met Gly Arg Leu Leu Gln Leu Gln Pro Glu Pro 120 . 125 Arg Ile Cys Tyr Leu Gln Gly Met Trp Gly Ser Ala Phe Ala Thr Ser 135 140 Leu Asp Glu Ile Phe Leu Lys Thr Ala Gly Ser Gly Leu Ser Phe Leu 150 155 Glu Trp Tyr Arg Gly Ser Val Asn Ile Thr Asp Asp Cys Gln Lys Pro 165 170 Gln Leu His Asn 180

<210> 918 <211> 281

<212>Amino acid

<213> Homo sapiens

<400> 918 Glu Phe Leu Gly Arg Pro Thr Arg Pro Ala Lys Asp Glu Gly Asn Asp 10 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 25 Glu Gly Lys Asp Glu Gly Lys Asp Glu Arg Lys Asp Glu Gly Lys Asp 40 Glu Gly Lys Asp Glu Arg Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 55 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 70 75 Glu Gly Lys Asp Glu Gly Asn Asp Glu Gly Lys Asp Glu Gly Lys Asp 85 90 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 100 105 Glu Arg Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Arg Lys Asp 115 120 125 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 135 140 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Asn Asp 150 155 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 170 165 175 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Asn Asp Glu Gly Asn Asp 180 185 Glu Gly Asn Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Arg Asn Asp 200 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 215 Glu Arg Asn Asp Glu Gly Lys Asp Glu Arg Lys Asp Glu Gly Lys Asp 230 235 Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp Glu Gly Lys Asp 250 Glu Gly Asn Asp Glu Gly Lys Asp Glu Arg Lys Asp Glu Gly Lys Asp 265 Glu Gly Lys Asp Glu Gly Lys Asp Lys 275

<210> 919 <211> 147 <212>Amino acid <213> Homo sapiens

<400> 919 Pro Ser Leu Arg Pro Ala Trp His Glu Gly Glu Asp Phe Ser Tyr Gly - 5 10 Leu Gln Pro Tyr Cys Gly Tyr Ser Phe Gln Val Val Gly Glu Met Ile 2.0 25 Arg Asn Arg Glu Val Leu Pro Cys Pro Asp Asp Cys Pro Ala Trp Ala 40 Tyr Ala Leu Met Ile Glu Gly Trp Asn Glu Phe Pro Ser Arg Arg Ala Arg Phe Lys Asp Ile His Ser Arg Leu Arg Ala Trp Gly Asn Leu Ser 70 75 Asn Tyr Asn Ser Ser Glu Gln Thr Ser Gly Gly Arg Asn Thr Thr Gln 90 Thr Ser Ser Leu Ser Thr Ser Pro Leu Cys Asn Val Ser Asn Ala Pro 105 Tyr Val Gly Pro Lys Gln Lys Val Pro Pro Phe Pro Gln Thr Gln Val

115 120 125

Ile Pro Met Lys Gly Gln Ile Arg Pro Met Val Pro Pro Pro Gln Leu
130 135

Tyr Val Pro 145

4210> 920

<210> 920 <211> 150 <212>Amino acid <213> Homo sapiens

<400> 920 Arg Asn Ser Gly Arg His Pro Arg Val Arg Trp Ile Leu Glu Glu Arg 1 5 10 Lys Arg Val Met Gln Glu Ala Cys Ala Lys Tyr Arg Ala Ser Ser Ser 20 25 Arg Arg Ala Val Thr Pro Arg His Val Ser Arg Ile Phe Val Glu Asp 40 Arg His Arg Val Leu Tyr Cys Glu Val Pro Lys Ala Gly Cys Ser Asn 55 Trp Lys Arg Val Leu Met Val Leu Ala Gly Leu Ala Ser Ser Thr Ala 70 75 Asp Ile Gln His Asn Thr Val His Tyr Gly Ser Ala Leu Lys Arg Leu 90 85 Asp Thr Phe Asp Arg Gln Gly Ile Leu His Arg Leu Ser Thr Tyr Thr 100 105 Lys Met Leu Phe Val Arg Glu Pro Phe Glu Arg Leu Val Ser Ala Phe 120 Arg Asp Lys Phe Glu His Pro Asn Ser Tyr Tyr His Pro Val Phe Cys Met Ala Ile Leu Ala Arq 145 150

<210> 921 <211> 125 <212>Amino acid <213> Homo sapiens

<400> 921 Ile Met Tyr Ser Ile Ser Pro Ala Asn Ser Glu Glu Gly Gln Glu Leu 5 10 Tyr Val Cys Thr Val Lys Asp Asp Val Asn Leu Asp Thr Val Leu Leu 25 Leu Pro Phe Leu Lys Glu Ile Ala Val Ser Gln Leu Asp Gln Leu Ser 35 40 Pro Glu Glu Gln Leu Leu Val Lys Cys Ala Ala Ile Ile Gly His Ser 55 Phe His Ile Asp Leu Leu Gln His Leu Leu Pro Gly Trp Asp Lys Asn Lys Leu Leu Gln Val Leu Arg Ala Leu Val Asp Ile His Val Leu Cys 85 90 Trp Ser Asp Lys Ser Gln Glu Leu Pro Ala Glu Pro Ile Leu Met Pro 105 Ser Ser Ile Asp Ile Ile Asp Gly Thr Lys Glu Lys Lys

125

101/00000

120

<210> 922 <211> 111 <212>Amino acid <213> Homo sapiens

115

<400> 922 Gly Pro His Val Val Leu Val Leu Arg Arg Cys Phe Leu Leu Ser Tyr 1 10 Phe Lys Gly Val Glu Lys Ala Lys Ala Met Pro Ser Pro Arg Ile Leu 20 25 Lys Thr His Leu Ser Thr Gln Leu Leu Pro Pro Ser Phe Trp Glu Asn 35 40 45 Asn Cys Lys Val Arg Tyr Gln Gln Leu Pro Val Thr Glu Gly Lys Val 50 Ser Gln Pro Lys Arg Val Leu Gln Thr Pro Thr Gln Ser Ile Arg Asp 65 70 75 His Leu Cys Leu Ser Thr Val Ser Asp Ala Tyr Gln Gln Arg Glu Asn 90 Ile Lys Phe Tyr Ile Gln Gln Asp Ile His Leu Asn Ser Phe Lys 100

<210> 923 <211> 69 <212>Amino acid <213> Homo sapiens

4400> 923
Phe Tyr Tyr Ile Cys Arg Leu Ser Lys Glu Asp Lys Ala Phe Leu Trp
1 15 5 10 115 110 115
Glu Lys Arg Tyr Tyr Cys Phe Lys His Pro Asn Cys Leu Pro Lys Ile
20 25 30
Leu Ala Ser Ala Pro Asn Trp Lys Trp Val Asn Leu Ala Lys Thr Tyr
36 Ser Leu Leu His Gln Trp Pro Ala Leu Tyr Pro Leu Ile Ala Leu Glu
50 55 60
Leu Leu Asp Ser Lys
65 69

<211> 120 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(120)

<210> 924

<223> X = any amino acid or stop code

<400> 924 Lys Met Met Ile Xaa Gly Leu Phe Glu Ile Gln Gln Cys Pro Ile Gly 5 3.0 Lys His Cys Asn Phe Leu Gln Val Leu Arg Asn Pro Asn Arg Asp Leu 20 25 Trp Leu Val Ser Ser Phe Gly Lys Ser Ser Lys Gly Arg Glu Arg Met 40 Gly His His Asp Glu Tyr Tyr Arq Leu Arq Gly Arq His Asn Pro Ser 55 Pro Asp His Ser Tyr Lys Arg Asn Gly Glu Ser Glu Arg Lys Arg Lys 70 Lys Ser His Xaa His Met Ser Lys Ser Gln Glu Arg His Asn Ser Pro Ser Arg Gly Arg Asn Ser Asp Arg Ser Gly Gly Arg Cys Ser Arg Ser 100 105

<210> 925 <211> 108 <212>Amino acid <213> Homo sapiens

Asp Asn Gly Arg Ser Arg Tyr Arg

<220>
<221> misc_feature
<222> (1)...(108)

<223> X = any amino acid or stop code

<210> 926 <211> 305

<211> 305 <212>Amino acid

<213> Homo sapiens

<400> 926 Phe Asp Lys Arg Gln His Glu Ala Arg Ile Gln Gln Met Glu Asn Glu l 1 5 10 15 The His Tyr Leu Gln Glu Asn Leu Lys Ser Met Glu Glu Ile Gln Gly

25 Leu Thr Asp Leu Gln Leu Gln Glu Ala Asp Glu Glu Lys Glu Arg Ile 40 Leu Ala Gln Leu Arg Glu Leu Glu Lys Lys Lys Lys Leu Glu Asp Ala 55 Lys Ser Gln Glu Gln Val Phe Gly Leu Asp Lys Glu Leu Lys Lys Leu 70 · 75 Lys Lys Ala Val Ala Thr Ser Asp Lys Leu Ala Thr Ala Glu Leu Thr 85 90 Ile Ala Lys Asp Gln Leu Lys Ser Leu His Gly Thr Val Met Lys Ile 100 105 Asn Gln Glu Arg Ala Glu Glu Leu Gln Glu Ala Glu Arg Phe Ser Arg 115 120 Lys Ala Ala Gln Ala Ala Arg Asp Leu Thr Arg Ala Glu Ala Glu Ile 135 Glu Leu Leu Gln Asn Leu Leu Arg Gln Lys Gly Glu Gln Phe Arg Leu 145 150 155 Glu Met Glu Lys Thr Gly Val Gly Thr Gly Ala Asn Ser Gln Val Leu 170 175 Glu Ile Glu Lys Leu Asn Glu Thr Met Glu Arg Gln Arg Thr Glu Ile 180 185 Ala Arg Leu Gln Asn Val Leu Tyr Leu Thr Gly Ser Asp Asn Lys Gly 200 Gly Phe Glu Asn Val Leu Glu Glu Ile Ala Glu Leu Arg Arg Glu Gly 215 Ser Tyr Gln Asn Asp Tyr Ile Ser Ser Met Ala Asp Pro Phe Lys Arg 235 230 Arg Gly Tyr Trp Tyr Phe Met Pro Pro Pro Pro Ser Ser Lys Val Ser 245 250 Ser His Ser Ser Gln Ala Thr Lys Asp Ser Gly Val Gly Leu Lys Tyr 265 Ser Ala Ser Thr Pro Val Arg Lys Pro Arg Pro Gly Gln Gln Asp Gly 280 Lys Glu Gly Ser Gln Pro Pro Pro Ala Ser Gly Tyr Trp Val Tyr Ser 305

<210> 927 <211> 303 <212>Amino acid

<213> Homo sapiens

Glu Ala Ser Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val 100 105 110 Lys Lys Tyr Ser Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser

```
120
Lys Thr Glu Thr Val Glu Glu Pro Met Glu Glu Glu Glu Ala Ala Lys
 130 135 140
Glu Glu Lys Glu Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu
145 150 155
Glu Glu Lys Lys Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp
           165
                        170 175
Trp Glu Leu Met Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys
       180 185 190
Glu Val Glu Glu Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys
                  200 205
Glu Ser Asp Asp Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu
 210 215 220
Val Thr Phe Lys Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly
             230
                             235 240
Leu Phe Asp Glu Tyr Gly Ser Lys Lys Ser Asp Tyr Ile Lys Leu Tyr
                          250
Val Arg Arg Val Phe Ile Thr Asp Asp Phe His Asp Met Met Pro Lys
                       265 270
Tyr Leu Asn Phe Val Lys Gly Val Val Asp Ser Asp Asp Leu Pro Leu
                    280
Asn Val Ser Arg Glu Thr Leu Gln Gln His Lys Leu Leu Lys Val
                                300 303
```

<210> 928 <211> 147 <212>Amino acid <213> Homo sapiens

<400> 928 Cys Gly Ser Trp Met Arg Arg Ala Leu Ile Pro Pro Cys Arg Gly Gly 1 5 10 15 Pro Ser Ala Ser Asp Arg Cys Cys Ser Cys Ser Pro Ser Gly Phe Ser 25 Ala Gly Arg Gly Arg Cys Pro Val Gln Gly Cys Leu Arg Pro His Arg 35 40 45 Val Gln Leu Leu Arg Arg Trp Gly Pro Gly Ser Pro Ala Gly Gln Arg 55 Leu Ser Lys Gly Phe Gln Leu Leu Arg Trp Trp Gly Pro Gly Ser Pro 70 75 Ala Pro Glu Pro Arg Lys Gly Pro Phe Pro Pro Pro Asp Pro Pro Trp 85 90 Pro Val Thr Ala Val Thr Val Met Ala Gly Ser Val Pro Ser Ala Gln 100 105 110 Ser Val Asp Ala Leu Glu Ser Pro Gly Pro Leu Ala Leu Glu Gly Pro 115 120 Ser Ser Pro Arg Asn Leu Leu Trp Arg Glu Met Ser Ile Phe Leu Pro 135 Glv Ile Phe 145 147

<210> 929 <211> 183 <212>Amino acid <213> Homo sapiens

Pro Gly Pro Thr Pro Pro Pro Arg His Gly Ser Pro Pro His Arg Leu 10 Ile Arg Val Glu Thr Pro Gly Pro Pro Ala Pro Pro Ala Asp Glu Arg 2.5 Ile Ser Gly Pro Pro Ala Ser Ser Asp Arg Leu Ala Ile Leu Glu Asp 35 40 Tyr Ala Asp Pro Phe Asp Val Gln Glu Thr Gly Glu Gly Ser Ala Gly 55 Ala Ser Gly Ala Pro Glu Lys Val Pro Glu Asn Asp Gly Tyr Met Glu 75 70 Pro Tyr Glu Ala Gln Lys Met Met Ala Glu Ile Arg Gly Ser Lys Glu 85 90 Thr Ala Thr Gln Pro Leu Pro Leu Tyr Asp Thr Pro Tyr Glu Pro Glu 105 Glu Asp Gly Ala Thr Pro Glu Gly Glu Gly Ala Pro Trp Pro Arg Glu 120 Ser Arg Leu Pro Glu Asp Asp Glu Arg Pro Pro Glu Glu Tyr Asp Gln 135 140 Pro Trp Glu Trp Lys Lys Glu Arg Ile Ser Lys Ala Phe Ala Val Asp 150 155 Ile Lys Val Ile Lys Asp Leu Pro Trp Pro Pro Pro Val Gly Gln Leu 165 170 Asp Ser Ser Pro Ser Leu Pro 180 183

<210> 930 <211> 187 <212>Amino acid <213> Homo sapiens

<400> 930 Gln Phe Phe Ser Leu Phe Leu Arg Tyr Gln Ile His Thr Gly Leu Gln 5 10 His Ser Ile Ile Arg Pro Thr Gln Pro Asn Cys Leu Pro Leu Asp Asn 20 25 Ala Thr Leu Pro Gln Lys Leu Lys Glu Val Gly Tyr Ser Thr His Met 40 Val Gly Lys Trp His Leu Gly Phe Tyr Arg Lys Glu Cys Met Pro Thr 55 Arg Arg Gly Phe Asp Thr Phe Phe Gly Ser Leu Leu Gly Ser Gly Asp 70 Tyr Tyr Thr His Tyr Lys Cys Asp Ser Pro Gly Met Cys Gly Tyr Asp 90 Leu Tyr Glu Asn Asp Asn Ala Ala Trp Asp Tyr Asp Asn Gly Ile Tyr 105 Ser Thr Gln Met Tyr Thr Gln Arg Val Gln Gln Ile Leu Ala Ser His 120 125 Asn Pro Thr Lys Pro Ile Phe Leu Tyr Ile Ala Tyr Gln Ala Val His 135 140 Ser Pro Leu Gln Ala Pro Gly Arg Tyr Phe Glu His Tyr Arg Ser Ile 150 155 Ile Asn Ile Asn Arg Arg Tyr Ala Ala Met Leu Ser Cys Leu Asp 165 170 Glu Ala Ile Asn Asn Val Thr Leu Ala Leu Lys 180 185 . 187

<210> 931 <211> 192 <212>Amino acid <213> Homo sapiens

<400> 931 Arg Val Arg Lys Gly Arg Gly Glu Arg Leu Gln Ser Pro Leu Arg 10 Val Pro Gln Lys Pro Glu Arg Pro Pro Leu Pro Pro Lys Pro Gln Phe 20 25 Leu Asn Ser Gly Ala Tyr Pro Gln Lys Pro Leu Arg Asn Gln Gly Val 40 Val Arg Thr Leu Ser Ser Ser Ala Gln Glu Asp Ile Ile Arg Trp Phe 55 Lys Glu Glu Gln Leu Pro Leu Arg Ala Gly Tyr Gln Lys Thr Ser Asp 70 75 Thr Ile Ala Pro Trp Phe His Gly Ile Leu Thr Leu Lys Lys Ala Asn 85 90 Glu Leu Leu Ser Thr Gly Met Pro Gly Ser Phe Leu Ile Arg Val 100 Ser Glu Arg Ile Lys Gly Tyr Ala Leu Ser Tyr Leu Ser Glu Asp Gly 120 125 Cys Lys His Phe Leu Ile Asp Ala Ser Ala Asp Ala Tyr Ser Phe Leu 135 140 Gly Val Asp Gln Leu Gln His Ala Thr Leu Ala Asp Leu Val Glu Tyr 150 155 His Lys Glu Glu Pro Ile Thr Ser Leu Gly Lys Glu Leu Leu Tyr 170 Pro Cys Gly Gln Gln Asp Gln Leu Pro Asp Tyr Leu Glu Leu Phe Glu

<210> 932 <211> 545 <212>Amino acid <213> Homo sapiens

```
120
His Glm Glm Val Glu Glu His Glu Lys Ile Lys Glm Glu Met Thr Met
                 135
                      . 140
Glu Tyr Lys Gln Glu Leu Lys Lys Leu His Glu Glu Leu Cys Ile Leu
             1.50
                   1.55
Lys Arg Ser Tyr Glu Lys Leu Gln Lys Lys Gln Met Arg Glu Phe Arg
           165 170
Gly Asn Thr Lys Asn His Arg Glu Asp Arg Ser Glu Ile Glu Arg Leu
        180 185
Thr Ala Lys Ile Glu Glu Phe Arg Gln Lys Ser Leu Asp Trp Glu Lys
     195 200
Gln Arg Leu Ile Tyr Gln Gln Gln Val Ser Ser Leu Glu Ala Gln Arg
                 215 220
Lys Ala Leu Ala Glu Gln Ser Glu Ile Ile Gln Ala Gln Leu Val Asn
              230
                             235
Arg Lys Gln Lys Leu Glu Ser Val Glu Leu Ser Ser Gln Ser Glu Ile
           245
                          250 255
Gln His Leu Ser Ser Lys Leu Glu Arg Ala Asn Asp Thr Ile Cys Ala
            265 270
Asn Glu Leu Glu Ile Glu Arg Leu Thr Met Arg Val Asn Asp Leu Val
                    280
Gly Thr Ser Met Thr Val Leu Gln Glu Gln Gln Gln Lys Glu Glu Lys
   290 295
Leu Arg Glu Ser Glu Lys Leu Leu Glu Ala Leu Gln Glu Glu Lys Arg
              310
                             315
Glu Leu Lys Ala Ala Leu Gln Ser Gln Glu Asn Leu Ile His Glu Ala
           325 330
Arg Ile Gln Lys Glu Lys Leu Gln Glu Lys Val Lys Ala Thr Asn Thr
        340
            345 350
Gln His Ala Val Glu Ala Ile Ser Leu Glu Ser Val Ser Ala Thr Cys
                    360
                                  365
Lys Gln Leu Ser Gln Glu Leu Met Glu Lys Tyr Glu Glu Leu Lys Arg
  370 375 380
Met Glu Ala His Asn Asn Glu Tyr Lys Ala Glu Ile Lys Lys Leu Lys
            390
                           395 400
Glu Gln Ile Leu Gln Gly Glu Gln Ser Tyr Ser Ser Ala Leu Glu Gly
           405
                         410 415
Met Lys Met Glu Ile Ser His Leu Thr Gln Glu Leu His Gln Arg Asp
       420 425
Ile Thr Ile Ala Ser Thr Lys Gly Ser Ser Ser Asp Met Glu Lys Arq
                  440
Leu Arg Ala Glu Met Gln Lys Ala Glu Asp Lys Ala Val Glu His Lys
  450 455 460
Glu Ile Leu Asp Gln Leu Glu Ser Leu Lys Leu Glu Asn Arg His Leu
            470 475 480
Ser Glu Met Val Met Lys Leu Glu Leu Gly Leu His Glu Cys Ser Leu
                          490
Pro Val Ser Pro Leu Gly Ser Ile Ala Thr Arg Phe Leu Glu Glu Glu
        500
                       505
Glu Leu Arg Ser His His Ile Leu Glu Arg Leu Asp Ala His Ile Glu
                    520
Glu Leu Lys Arg Glu Ser Glu Lys Thr Val Arg Gln Phe Thr Ala Leu
                 535
Lys
545
```

<210> 933 <211> 297

<212>Amino acid

<213> Homo sapiens

<400> 933 Thr Gly Phe Leu Gly Trp Ser Gln Gly Pro Ser Leu Thr Pro Thr Ser 5 10 Leu Ser Ala Leu Tyr Pro Ser Gln Val Glu Glu Thr Gly Val Val Leu 20 25 Ser Leu Glu Gln Thr Glu Gln His Ser Arg Arg Pro Ile Gln Arg Gly 40 45 Ala Pro Ser Gln Lys Asp Thr Pro Asn Pro Gly Asp Ser Leu Asp Thr - 60 55 Pro Gly Pro Arg Ile Leu Ala Phe Leu His Pro Pro Ser Leu Ser Glu 70 Ala Ala Leu Ala Ala Asp Pro Arg Arg Phe Cys Ser Pro Asp Leu Arg 85 90 Arg Leu Leu Gly Pro Ile Leu Asp Gly Ala Ser Val Ala Ala Thr Pro 100 105 Ser Thr Pro Leu Ala Thr Arg His Pro Gln Ser Pro Leu Ser Ala Asp 120 125 Leu Pro Asp Glu Leu Pro Val Gly Thr Glu Asn Val His Arg Leu Phe 140 135 Thr Ser Gly Lys Asp Thr Glu Ala Val Glu Thr Asp Leu Asp Ile Ala 150 155 Gln Asp Ala Asp Ala Leu Asp Leu Glu Met Leu Ala Pro Tyr Ile Ser 165 170 Met Asp Asp Asp Phe Gln Leu Asn Ala Ser Glu Gln Leu Pro Arg Ala 180 185 190 Tyr His Arg Pro Leu Gly Ala Val Pro Arg Pro Arg Ala Arg Ser Phe 200 205 195 His Gly Leu Ser Pro Pro Ala Leu Glu Pro Ser Leu Leu Pro Arg Trp 215 220 Gly Ser Asp Pro Arg Leu Ser Cys Ser Ser Pro Ser Arg Gly Asp Pro 230 235 Ser Ala Ser Ser Pro Met Ala Gly Ala Arg Lys Arg Thr Leu Ala Gln 250 Ser Ser Lys Asp Glu Asp Glu Gly Val Glu Leu Leu Gly Val Arg Pro Pro Lys Arg Ser Pro Ser Pro Glu His Glu Asn Phe Leu Leu Phe Pro 280 Leu Ser Leu Ser Phe Leu Leu Thr Gly 295 297

<210> 934 <211> 140

<212>Amino acid <213> Homo sapiens

85 90 95
Pro Lys His Arg Ser Trp His Thr Leu Thr Pro Ile Ala Asp Asp Lys
100 105 110 110 110 110 110 Ser Asp
Leu Phe Leu Cys Gly Gly Leu Asn Ala Tyr Asn Met Pro Leu Ser Asp
115 120 125
Gly Trp Ile His Asn Val Thr Thr His Cys Trp Lys
130 135 140

<210> 935 <211> 97 <212>Amino acid <213> Homo sapiens

<400× 935 Phe Phe Phe Leu Arg Thr Arg Ser His Ser Val Thr Pro Arg Trp Glu 1 1.0 15 Cys Ser Asp Asp Ile Thr Ala His Trp Gln Pro Gln Pro Trp Gly Ser 20 25 Ser Asp Pro Leu Thr Phe Ser Arg Pro Gln Val Val Pro Pro Arg 35 40 His Thr Thr Leu Cys Pro Ala Asn Phe Phe Val Phe Cys Ile Phe Cys 55 Arg Asn Arg Ile Ser Pro Cys Trp Pro Gly Trp Ser Arg Thr Pro Trp 70 75 Ala Gln Leu Ile Arg Leu Pro Arg Pro Pro Lys Val Leu Gly Leu Gln 85

<210> 936 <211> 245 <212>Amino acid <213> Homo sapiens

Val 97

<400> 936 Pro Arg Glu Gly Gln Val Lys Gln Gly Leu Leu Gly Asp Cys Trp Phe 5 . 10 Leu Cys Ala Cys Ala Ala Leu Gln Lys Ser Arg His Leu Leu Asp Gln 20 25 Val Ile Pro Pro Gly Gln Pro Ser Trp Ala Asp Gln Glu Tyr Arg Gly 40 Ser Phe Thr Cys Arg Ile Trp Gln Phe Gly Arg Trp Val Glu Val Thr 55 Thr Asp Asp Arg Leu Pro Cys Leu Ala Gly Arg Leu Cys Phe Ser Arg 70 75 Cys Gln Arg Glu Asp Val Phe Trp Leu Pro Leu Leu Glu Lys Val Tyr 90 Ala Lys Val His Gly Ser Tyr Glu His Leu Trp Ala Gly Gln Val Ala 105 Asp Ala Leu Val Asp Leu Thr Gly Gly Leu Ala Glu Arg Trp Asn Leu 120 Lys Gly Val Ala Gly Ser Gly Gly Gln Gln Asp Arg Pro Gly Arg Trp 135 Glu His Arg Thr Cys Arg Gln Leu Leu His Leu Lys Asp Gln Cys Leu

nr ser pro pne mis 245

-

<210> 937

<211> 211

<212>Amino acid

<213> Homo sapiens

<400> 937 Ala Glu Cys Leu Glu Ala Ser Ile Ala Arg Tyr Ala His Arg Val Ala 10 Asn Ser Arg Tyr Thr Phe Asp Gly Glu Thr Val Thr Leu Ser Pro Ser 25 20 Gln Gly Val Asn Gln Leu His Gly Gly Pro Glu Gly Phe Asp Lys Arg 40 Arg Trp Gln Ile Val Asn Gln Asn Asp Arg Gln Val Leu Phe Ala Leu 50 55 Ser Ser Asp Asp Gly Asp Gln Gly Phe Pro Gly Asn Leu Gly Ala Thr 75 70 Val Gln Tyr Arg Leu Thr Asp Asp Asn Arg Ile Ser Ile Thr Tyr Arg 90 Ala Thr Val Asp Lys Pro Cys Pro Val Asn Met Thr Asn His Val Tyr 105 110 Phe Asn Leu Asp Gly Glu Gln Ser Asp Val Arg Asn His Lys Leu Gln Ile Leu Ala Asp Glu Tyr Leu Pro Val Asp Glu Gly Gly Ile Pro His 135 Asp Gly Leu Lys Ser Val Ala Gly Thr Ser Phe Asp Phe Arg Ser Ala 145 150 155 160 Lys Ile Ile Ala Ser Glu Phe Leu Ala Asp Asp Asp Gln Arg Lys Val 170 Lys Gly Tyr Asp His Ala Phe Leu Leu Gln Ala Lys Gly Asp Gly Lys 185 Lys Val Ala Ala His Val Trp Ser Ala Asp Glu Lys Leu Gln Leu Lys 195 Val Tyr Thr

^{210 211}

<210> 938 <211> 118

<212>Amino acid

<213> Homo sapiens

<400> 938 Pro Leu Ser Arg Phe Leu Ser Lys Glu Ser Gln Glu Asp Trp Gly Met 10 Glu Arg Gln Ser Arg Val Met Ser Glu Lys Asp Glu Tyr Gln Phe Gln 20 25 His Gln Gly Ala Val Glu Leu Leu Val Phe Asn Phe Leu Leu Ile Leu 40 45 Thr Ile Leu Thr Ile Trp Leu Phe Lys Asn His Arg Phe Arg Phe Leu 55 His Glu Thr Gly Gly Ala Met Val Tyr Asp Lys Pro Pro Lys Phe Ala 70 75 Met Ser Arg Glu Gln Met Ser Gln Ser Cys Ser His Thr Ala His Asn 85 90 Ala Ser Leu Leu Thr Asp Ala Gly Pro Leu Ser Cys Gly Glu Ser Arg 100 105 Ala Ser Cys Leu Phe Leu 115 118

<210> 939 <211> 143 <212>Amino acid <213> Homo sapiens

<400> 939 Asp Ser Lys Glu Pro Arg Leu Gln Gln Leu Gly Leu Leu Glu Glu Glu 1 10 Gln Leu Arg Gly Leu Gly Phe Arg Gln Thr Arg Gly Tyr Lys Ser Leu 20 25 Ala Gly Cys Leu Gly His Gly Pro Leu Val Leu Gln Leu Leu Ser Phe 35 40 Thr Leu Leu Ala Gly Leu Leu Val Gln Val Ser Lys Val Pro Ser Ser 55 Ile Ser Gln Glu Gln Ser Arg Gln Asp Ala Ile Tyr Gln Asn Leu Thr 70 Gln Leu Lys Ala Ala Val Gly Glu Leu Ser Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu 105 Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Trp Leu 120 Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Met Gln Glu 130 140 143

<210> 940 <211> 63 <212>Amino acid <213> Homo sapiens

 $^{\circ}$ 400> 940 Met Gln Ser Ile Ala Trp Gly His Arg Arg Asp Arg Gly Glu Ser Pro $^{\circ}$ 10 $^{\circ}$ 15 Leu Gly Trp Gly Gln Glu Ser Glu Ala Ser Pro Ser Ala Leu Thr Glu $^{\circ}$ 20 $^{\circ}$ 25 $^{\circ}$ Ala Pro Lys Ala Ala His Thr Thr Arg Leu Gly Phe Leu Ala Ala Asn

35 40 45
Asn Pro Asn Gly His Ser Gln Pro Gln Asp Ser Phe Leu Leu *
50 . 55 60 62

<210> 941 <211> 238 <212>Amino acid <213> Homo sapiens

<4005 941

Phe Glu Thr Leu Ser Met Arg Gly Ile Pro His Met Leu Ala Leu Gly 5 10 Pro Gln Gln Leu Leu Ala Gln Asp Glu Glu Gly Asp Thr Leu Leu His 20 25 Leu Phe Ala Ala Arg Gly Leu Arg Trp Ala Ala Tyr Ala Ala Ala Glu Val Leu Gln Val Tyr Arg Arg Leu Asp Ile Arg Glu His Lys Gly Lys 55 Thr Pro Leu Leu Val Ala Ala Ala Ala Asn Gln Pro Leu Ile Val Glu 70 75 Asp Leu Leu Asn Leu Gly Ala Glu Pro Asn Ala Ala Asp His Gln Gly 85 90 Arg Ser Val Leu His Val Ala Ala Thr Tyr Gly Leu Pro Gly Val Leu 100 105 Leu Ala Val Leu Asn Ser Gly Val Gln Val Asp Leu Glu Ala Arg Asp 120 Phe Glu Gly Leu Thr Pro Leu His Thr Ala Ile Leu Ala Leu Asn Val 135 140 Ala Met Arg Pro Ser Asp Leu Cys Pro Arg Val Leu Ser Thr Gln Ala 150 155 Arg Asp Arg Leu Asp Cys Val His Met Leu Leu Gln Met Gly Ala Asn 165 170 175 His Thr Ile Gln Val Ser Gly Asp Val Gly Gly Gln Thr Leu Gly Asp 180 185 Cys Val Glu Trp Gly His Leu Asp Val Arg Glu Leu Gln Ala Asn Ala 200 Asp Phe Ala Ser Ser Leu Leu Arg Ala Leu Glu His Val Thr Ser Leu 215 220 Leu Cys Ala Leu Arg Val Phe Cys Leu Phe Leu Cys Gln Leu 230

<210> 942 <211> 158 <212>Amino acid <213> Homo sapiens

<400> 942

Asp Ala Trp Ala Asp Ala Trp Val Gly Thr Lys Met Ala Asp Leu Asp 1 5 10 15 Ser Pro Pro Lys Leu Ser Gly Val Gln Gln Pro Ser Glu Gly Val Gly Gly Gly Arg Gys Ser Glu Ile Ser Ala Glu Leu Ile Arg Ser Leu Thr $\frac{35}{40}$ Glu Leu Gln Glu Leu Glu Ala Val Tyr Glu Arg Leu Cys Gly Glu Glu Glu Leu Gln Glu Leu Glu Ala Val Tyr Glu Arg Leu Cys Gly Glu Glu

55 60 Lys Val Val Glu Arg Glu Leu Asp Ala Leu Leu Glu Gln Gln Asn Thr 70 75 Ile Glu Ser Lys Met Val Thr Leu His Arg Met Gly Pro Asn Leu Gln 85 90 Leu Ile Glu Gly Asp Ala Lys Gln Leu Ala Gly Met Ile Thr Phe Thr 100 105 110 Cys Asn Leu Ala Glu Asn Val Ser Ser Lys Val Arg Gln Leu Asp Leu 115 120 125 Ala Lys Asn Arg Leu Tyr Gln Ala Ile Gln Arg Ala Asp Asp Ile Leu 130 135 140 Asp Leu Lys Phe Cys Met Asp Gly Val Gln Thr Ala Leu Arg 150 155 158

<210> 943 <211> 235 <212>Amino acid <213> Homo sapiens

<400> 943 Ala Val Glu Phe Arg Val Pro Arg Ser Gly Ser Ala Tyr Leu Tyr Ser 1 5 10 15 Tyr Val Thr Val Gly Glu Leu Trp Ala Phe Thr Thr Gly Trp Asn Leu 20 25 Ile Leu Ser Tyr Val Ile Gly Thr Ala Ser Val Ala Arg Ala Trp Ser Ser Ala Phe Asp Asn Leu Ile Gly Asn His Ile Ser Lys Thr Leu Gln Gly Ser Ile Ala Leu His Val Pro His Val Leu Ala Glu Tyr Pro Asp 75 Phe Phe Ala Leu Gly Leu Val Leu Leu Leu Thr Gly Leu Leu Ala Leu 85 90 Gly Ala Ser Glu Ser Ala Leu Val Thr Lys Val Phe Thr Gly Val Asn 100 105 Leu Leu Val Leu Gly Phe Val Met Ile Ser Gly Phe Val Lys Gly Asp 115 120 125 Val His Asn Trp Lys Leu Thr Glu Glu Asp Tyr Glu Leu Ala Met Ala 130 135 140 Glu Leu Asn Asp Thr Tyr Ser Leu Gly Pro Leu Gly Ser Gly Gly Phe 150 155 Val Pro Phe Gly Phe Glu Gly Ile Leu Arg Gly Ala Ala Thr Cys Phe 165 170 175 Tyr Ala Phe Val Gly Phe Asp Cys Ile Ala Thr Thr Gly Glu Glu Ala 180 185 Gln Asn Pro Gln Arg Ser Ile Pro Met Gly Ile Gly Ile Ser Leu Ser 195 200 Val Cys Phe Leu Ala Asp Phe Ala Val Ser Ser Ala Leu Thr Leu Met 210 215 220 Met Pro Tyr Tyr Gln Leu Gln Pro Glu Ser Pro 230

<210> 944 <211> 284

<212>Amino acid <213> Homo sapiens

<400> 944 Gly Phe His Pro Asn Thr Thr His Tyr Arg Ala Arg Ala Ala Ala Arg 5 10 Ala Gly Ala Gly Ser Phe Val Gly Glu Val Ser Ala Val Asp Lys Asp 25 Phe Gly Pro Asn Gly Glu Val Arg Tyr Ser Phe Glu Met Val Gln Pro 40 Asp Phe Glu Leu His Ala Ile Ser Gly Glu Ile Thr Asn Thr His Gln 55 Phe Asp Arg Glu Ser Leu Met Arg Arg Arg Gly Thr Ala Val Phe Ser . 70 75 Phe Thr Val Ile Ala Thr Asp Gln Gly Ile Pro Gln Pro Leu Lys Asp 90 Gln Ala Thr Val His Val Tyr Met Lys Asp Ile Asn Asp Asn Ala Pro 105 Lys Phe Leu Lys Asp Phe Tyr Gln Ala Thr Ile Ser Glu Ser Ala Ala 120 Asn Leu Thr Gln Val Leu Arg Val Ser Ala Ser Asp Val Asp Glu Gly 135 140 Asn Asn Gly Leu Ile His Tyr Ser Ile Ile Lys Gly Asn Glu Glu Arg 150 155 Gln Phe Ala Ile Asp Ser Thr Ser Gly Gln Val Thr Leu Ile Gly Lys 165 170 Leu Asp Tyr Glu Ala Thr Pro Ala Tyr Ser Leu Val Ile Gln Ala Val 185 Asp Ser Gly Thr Ile Pro Leu Asn Ser Thr Cys Thr Leu Asn Ile Asp 200 205 Ile Leu Asp Glu Asn Asp Asn Thr Pro Phe Phe Leu Leu Asn Gln His 215 220 Phe Phe Val Asp Val Leu Glu Asn Met Arg Ile Gly Glu Leu Gly Ala 230 235 Ser Gly Thr Ala Thr Asp Ser Asp Ser Gly Asp Ile Ala Asp Leu Tyr 250 Tyr Lys Phe Thr Gly Thr Lys His Pro Pro Gly Thr Phe Ser Ile Ser Pro Lys His Leu Gly Val Phe Phe Leu Ala Gln Lys 275 280

<210> 945 <211> 119 <212>Amino acid <213> Homo sapiens

<<pre><<pre><<pre><<pre><<pre><<pre><<pre><<pre><<pre>

100 105 110 Ile His Cys Gln Glu Leu Lys 115 119

<210> 946 <211> 166 <212>Amino acid <213> Homo sapiens

<400> 946 Ile Asp Ser Gly Asn Gln Asn Gly Gly Asn Asp Asp Lys Thr Lys Asn 10 Ala Glu Arg Asn Tyr Leu Asn Val Leu Pro Gly Glu Phe Tyr Ile Thr 25 Arg His Ser Asn Leu Ser Glu Ile His Val Ala Phe His Leu Cys Val 35 40 Asp Asp His Val Lys Ser Gly Asn Ile Thr Ala Arg Asp Pro Ala Ile 55 Met Gly Leu Arg Asn Ile Leu Lys Val Cys Cys Thr His Asp Ile Thr 70 75 Thr Ile Ser Ile Pro Leu Leu Leu Val His Asp Met Ser Glu Glu Met 85 90 Thr Ile Pro Trp Cys Leu Arg Arg Ala Glu Leu Val Phe Lys Cys Val 105 110 Lys Gly Phe Met Met Glu Met Ala Ser Trp Asp Gly Gly Ile Ser Arg 120 125 Thr Val Gln Phe Leu Val Pro Gln Ser Ile Ser Glu Glu Met Phe Tyr 130 135 140 Gln Leu Ser Asn Met Leu Pro Gln Ile Phe Arg Val Ser Ser Thr Leu 150 155 Thr Leu Thr Ser Lys His 165 166

<210> 947 <211> 121 <212>Amino acid <213> Homo sapiens

<400> 947 Ser Ile Leu Pro Ala Leu Leu Val Thr Ile Leu Ile Phe Met Asp Gln
1 5 10 15 Glm Ile Thr Ala Val Ile Val Asn Arg Lys Glu Asn Lys Leu Lys Lys 20. 25 Ala Ala Gly Tyr His Leu Asp Leu Phe Trp Val Gly Ile Leu Met Ala 40 Leu Cys Ser Phe Met Gly Leu Pro Trp Tyr Val Ala Ala Thr Val Ile 55 Ser Ile Ala His Ile Asp Ser Leu Lys Met Glu Thr Glu Thr Ser Ala 70 75 Pro Gly Glu Gln Pro Gln Phe Leu Gly Val Arg Glu Gln Arg Val Thr 90 Gly Ile Ile Val Phe Ile Leu Thr Gly Ile Ser Val Phe Leu Ala Pro 100 105 Ile Leu Lys Cys Ile Pro Leu Pro Val

120 121

<210> 948 <211> 191 <212>Amino acid <213> Homo sapiens

115

<400> 948 Gly Ala Ser Arg Val Glu Ala Gly Ser Ala Asn Gly Met Leu Ile Asp 10 Gly Gly Ser Gln Ile Val Lys Val Gln Gly His Ala Asp Gly Thr Thr 20 25 Ile Asn Lys Ser Gly Ser Gln Asp Val Val Gln Gly Ser Leu Ala Thr 35 40 45 Asn Thr Thr Ile Asn Gly Gly Arg Gln Tyr Val Glu Gln Ser Thr Val 55 Glu Thr Thr Thr Ile Lys Asn Gly Gly Glu Gln Arg Val Tyr Glu Ser 70 75 Arg Ala Leu Asp Thr Thr Ile Glu Gly Gly Thr Gln Ser Leu Asn Ser 85 90 Lys Ser Thr Ala Lys Asn Thr His Ile Tyr Ser Gly Gly Thr Gln Ile 105 Val Asp Asn Thr Ser Thr Ser Asp Val Ile Glu Val Tyr Ser Gly Gly 120 Val Leu Asp Val Arg Gly Gly Thr Ala Thr Asn Val Thr Gln His Asp 135 140 Gly Ala Ile Leu Lys Thr Asn Thr Asn Gly Thr Thr Val Ser Gly Thr 150 155 Asn Ser Glu Gly Ala Phe Ser Ile His Asn His Val Ala Asp Asn Val 165 170 Leu Leu Glu Asn Gly Gly His Leu Asp Ile Asn Ala Tyr Gly Ser 180 185

<210> 949 <211> 98 <212>Amino acid <213> Homo sapiens

<400> 949 Phe Phe Ser Ser Ile Gln Leu Thr Asp Asp Gln Gly Pro Val Leu Met 1 5 10 Thr Thr Val Ala Met Pro Val Phe Ser Lys Gln Asn Glu Thr Arg Ser 20 25 Lys Gly Ile Leu Leu Gly Val Val Gly Thr Asp Val Pro Val Lys Glu 40 Leu Leu Lys Thr Ile Pro Lys Tyr Lys Val Met Asn Asp Leu Ile Pro 55 60 Glu Ile Lys Ala Thr Glu Met Pro Arg Ala Leu Phe Ser Gln Ser Ser 70 75 Gly Phe Lys Leu Tyr Phe Gly Ala Met Phe Leu Leu Thr Thr Ile Thr 85 90 Ala Cys 98

<210> 950 <211> 196 <212>Amino acid <213> Homo sapiens

<400> 950 Ser Cys Ser Gly Thr Gly Thr Asn Ala Cys Tyr Met Glu Asp Met Ser 1 10 Asn Ile Asp Leu Val Glu Gly Asp Glu Gly Arg Met Cys Ile Asn Thr 20 25 Glu Trp Gly Ala Phe Gly Asp Asp Gly Ala Leu Glu Asp Ile Arg Thr 40 Glu Phe Asp Arg Glu Leu Asp Leu Gly Ser Leu Asn Pro Gly Lys Gln 55 Leu Phe Glu Lys Met Ile Ser Gly Leu Tyr Leu Gly Glu Leu Val Arg 70 75 Leu Ile Leu Leu Lys Met Ala Lys Ala Gly Leu Leu Phe Gly Gly Glu 85 90 Lys Ser Ser Ala Leu His Thr Lys Gly Lys Ile Glu Thr Arg His Val 100 105 Ala Ala Met Glu Lys Tyr Lys Glu Gly Leu Ala Asn Thr Arg Glu Ile 120 125 Leu Val Asp Leu Gly Leu Glu Pro Ser Glu Ala Asp Cys Ile Ala Val 135 140 Gln His Val Cys Thr Ile Val Ser Phe Arg Ser Ala Asn Leu Cys Ala 150 155 Ala Ala Leu Ala Ala Ile Leu Thr Arg Leu Arg Glu Asn Lys Lys Val 165 170 Glu Arg Leu Arg Thr Thr Val Gly Met Asp Gly Thr Leu Tyr Lys Ile 180 185 His Pro Gln Tyr 195 196

<210> 951 <211> 721 <212>Amino acid <213> Homo sapiens

<400> 951 Phe Val Ala Ile Ala Thr Asn Gly Val Val Pro Ala Gly Gly Ser Tyr 10 Tyr Met Ile Ser Arg Ser Leu Gly Pro Glu Phe Gly Gly Ala Val Gly 25 Leu Cys Phe Tyr Leu Gly Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu 40 Gly Thr Ile Glu Ile Leu Leu Ala Tyr Leu Phe Pro Ala Met Ala Ile 55 Phe Lys Ala Glu Asp Ala Ser Gly Glu Ala Ala Ala Met Leu Asn Asn 70 75 Met Arg Val Tyr Gly Thr Cys Val Leu Thr Cys Met Ala Thr Val Val 90 Phe Val Gly Val Lys Tyr Val Asn Lys Phe Ala Leu Val Phe Leu Gly 100 105 Cys Val Ile Leu Ser Ile Leu Ala Ile Tyr Ala Gly Val Ile Lys Ser

```
115
                       120
                                        1.25
Ala Phe Asp Pro Pro Asn Phe Pro Ile Cys Leu Leu Gly Asn Arg Thr
         135
                                    140
Leu Ser Arg His Gly Phe Asp Val Cys Ala Lys Leu Ala Trp Glu Gly
     1.50 1.55
Asn Glu Thr Val Thr Thr Arg Leu Trp Gly Leu Phe Cys Ser Ser Arg
      . 165 170 175
Phe Leu Asn Ala Thr Cys Asp Glu Tyr Phe Thr Arg Asn Asn Val Thr
         180 185 190
Glu Ile Gln Gly Ile Pro Gly Ala Ala Ser Gly Leu Ile Lys Glu Asn
     195 200 205
Leu Trp Ser Ser Tyr Leu Thr Lys Gly Val Ile Val Glu Arg Ser Gly
                   215
                                    220
Met Thr Ser Val Gly Leu Ala Asp Gly Thr Pro Ile Asp Met Asp His
              230
                                235
Pro Tyr Val Phe Ser Asp Met Thr Ser Tyr Phe Thr Leu Leu Val Gly
             245
                 250 255
Ile Tyr Phe Pro Ser Val Thr Gly Ile Met Ala Gly Ser Asn Arg Ser
                          265
Gly Asp Leu Arg Asp Ala Gln Lys Ser Ile Pro Thr Gly Thr Ile Leu
                       280
                                    285
Ala Ile Ala Thr Thr Ser Ala Val Tyr Ile Ser Ser Val Val Leu Phe
                   295
                                    300
Gly Ala Cys Ile Glu Gly Val Val Leu Arg Asp Lys Phe Gly Glu Ala
305
                310
                                315
Val Asn Gly Asn Leu Val Val Gly Thr Leu Ala Trp Pro Ser Pro Trp
           325
                             330
Val Ile Val Ile Gly Ser Phe Phe Ser Thr Cys Gly Ala Gly Leu Gln
         340
                         345
Ser Leu Thr Gly Ala Pro Arg Leu Leu Gln Ala Ile Ser Arg Asp Gly
                       360
                                       365
Ile Val Pro Phe Leu Gln Val Phe Gly His Gly Lys Ala Asn Gly Glu
                   375
                                    380
Pro Thr Trp Ala Leu Leu Leu Thr Ala Cys Ile Cys Glu Ile Gly Ile
                390
                               . 395
Leu Ile Ala Ser Leu Asp Glu Val Ala Pro Ile Leu Ser Met Phe Phe
                             410
                                              415
Leu Met Cys Tyr Met Phe Val Asn Leu Ala Cys Ala Val Gln Thr Leu
         420
                       425
Leu Arg Thr Pro Asn Trp Arg Pro Arg Phe Arg Tyr Tyr His Trp Thr
          440
                                       445
Leu Ser Phe Leu Gly Met Ser Leu Cys Leu Ala Leu Met Phe Ile Cys
                   455
                                    460
Ser Trp Tyr Tyr Ala Leu Val Ala Met Leu Ile Ala Gly Leu Ile Tyr
               470
                                475
Lys Tyr Ile Glu Tyr Arg Gly Ala Lys Lys Glu Trp Gly Asp Gly Ile
                            490 495
            485
Arg Gly Leu Ser Leu Ser Ala Ala Arg Tyr Ala Leu Leu Arg Leu Glu
         500
                         505
Glu Gly Pro Pro His Thr Lys Asn Trp Arg Pro Gln Leu Leu Val Leu
                      520
Val Arg Val Asp Gln Asp Gln Asn Val Val His Pro Gln Leu Leu Ser
                  535
Leu Thr Ser Gln Leu Lys Ala Gly Lys Gly Leu Thr Ile Val Gly Ser
               550
                                555
Val Leu Glu Gly Thr Phe Leu Glu Asn His Pro Gln Ala Gln Arg Ala
                            570
Glu Glu Ser Ile Arg Arg Leu Met Glu Ala Glu Lys Val Lys Gly Phe
                          585
Cys Gln Val Val Ile Ser Ser Asn Leu Arg Asp Gly Val Ser His Leu
                      600
Ile Gln Ser Gly Gly Leu Gly Gly Leu Gln His Asn Thr Val Leu Val
                   615
                           - 620
Gly Trp Pro Arg Asn Trp Arg Gln Lys Glu Asp His Gln Thr Trp Arg
```

```
630
                              635
Asn Phe Ile Glu Leu Val Arg Glu Thr Thr Ala Gly His Leu Ala Leu
           645 650 655
Leu Val Thr Lys Asn Val Ser Met Phe Pro Gly Asn Pro Glu Arg Phe
        660 665
Ser Glu Gly Ser Ile Asp Arg Trp Gly Ile Gly His Asp Gly Gly Met
     675 680
Leu Met Leu Val Pro Phe Leu Leu Arg His His Lys Val Trp Arg Lys
 690 695
                           700
Cys Lys Met Arg Ile Phe Thr Val Ala Gln Met Val Asp Met His Ala
      . 710
                              715
Met
721
```

<210> 952 <211> 42 <212>Amino acid <213> Homo sapiens

<210> 953 <211> 80 <212>Amino acid <213> Homo sapiens

<210> 954 <211> 202 <212>Amino acid <213> Homo sapiens

<400> 954 Cys Gly Thr Leu Ile Leu Gln Ala Arg Ala Tyr Val Gly Pro His Val 5 10 Leu Ala Val Val Thr Arg Thr Gly Phe Cys Thr Ala Lys Gly Gly Leu 20 25 Val Ser Ser Ile Leu His Pro Arg Pro Ile Asn Phe Lys Phe Tyr Lys 40 45 His Ser Met Lys Phe Val Ala Ala Leu Ser Val Leu Ala Leu Leu Gly 55 Thr Ile Tyr Ser Ile Phe Ile Leu Tyr Arg Asn Arg Val Pro Leu Asn 70 75 Glu Ile Val Ile Arg Ala Leu Asp Leu Val Thr Val Val Val Pro Pro 85 90 Ala Leu Pro Ala Ala Met Thr Val Cys Thr Leu Tyr Ala Gln Ser Arg 100 105 110 Leu Arg Arg Gln Gly Ile Phe Cys Ile His Pro Leu Arg Ile Asn Leu 115 120 125 Gly Gly Lys Leu Gln Leu Val Cys Phe Asp Lys Thr Gly Thr Leu Thr 130 - 135 Glu Asp Gly Leu Asp Val Met Gly Val Val Pro Leu Lys Gly Gln Ala 150 155 Phe Leu Pro Leu Val Pro Glu Pro Arg Arg Leu Pro Val Gly Pro Leu 165 170 Leu Arg Ala Leu Ala Thr Cys His Ala Leu Ser Arg Leu Gln Asp Thr 180 185 Pro Val Gly Asp Pro Met Asp Leu Lys Met 195 200 202

<210> 955 <211> 188 <212>Amino acid <213> Homo sapiens

<400> 955 Gln Ile Glu Tyr Phe Arg Ser Leu Leu Asp Glu His His Ile Ser Tyr 5 10 Val Ile Asp Glu Asp Val Lys Ser Gly Arg Tyr Met Glu Leu Glu Gln 25 Arg Tyr Met Asp Leu Ala Glu Asn Ala Arg Phe Glu Arg Glu Gln Leu 35 40 Leu Gly Val Gln Gln His Leu Ser Asn Thr Leu Lys Met Ala Glu Gln 55 Asp Asn Lys Glu Ala Gln Glu Met Ile Gly Ala Leu Lys Glu Arg Ser 70 His His Met Glu Arg Ile Ile Glu Ser Glu Gln Lys Gly Lys Ala Ala 90 Leu Ala Ala Thr Leu Glu Glu Tyr Lys Ala Thr Val Ala Ser Asp Gln 105 Ile Glu Met Asn Arg Leu Lys Ala Gln Leu Glu Asn Glu Lys Gln Lys 120 Val Ala Glu Leu Tyr Ser Ile His Asn Ser Gly Asp Lys Ser Asp Ile 135 140 Gln Asp Leu Leu Glu Ser Val Arg Leu Asp Lys Glu Lys Ala Glu Thr 150 155 Leu Ala Ser Ser Leu Gln Glu Asp Leu Ala His Thr Arg Asn Asp Ala 165 170 Asn Arg Leu Gln Asp Ala Ile Ala Lys Gly Arg Gly

180 185 188

<210> 956 <211> 132 <212>Amino acid <213> Homo sapiens

<400> 956 Ala Arg Tyr Arg Phe Thr Leu Ser Ala Arg Thr Gln Val Gly Ser Gly 5 10 Glu Ala Val Thr Glu Glu Ser Pro Ala Pro Pro Asn Glu Ala Thr Pro 20 25 30 Thr Ala Ala Pro Pro Thr Leu Pro Pro Thr Thr Val Gly Ala Thr Gly 40 Ala Val Ser Ser Thr Asp Ala Thr Ala Ile Ala Ala Thr Thr Glu Ala 55 Thr Thr Val Pro Ile Ile Pro Thr Val Ala Pro Thr Thr Met Ala Thr 70 75 Thr Thr Thr Val Ala Thr Thr Thr Thr Thr Thr Ala Ala Ala Thr Thr 85 Thr Thr Glu Ser Pro Pro Thr Thr Thr Ser Gly Thr Lys Ile His Glu 105 110 Ser Ala Pro Asp Glu Gln Ser Ile Trp Asn Val Thr Val Leu Pro Asn 115 120 Ser Lys Tro Ala

130 132

<210> 957 <211> 220 <212>Amino acid <213> Homo sapiens

<400> 957 Leu Lys Ser Thr Gln Asp Glu Ile Asn Gln Ala Arg Ser Lys Leu Ser 1 5 10 Gln Leu His Glu Ser Arg Gln Glu Ala His Arg Ser Leu Glu Gln Tyr 20 Asp Gln Val Leu Asp Gly Ala His Gly Ala Ser Leu Thr Asp Leu Ala 40 Asn Leu Ser Glu Gly Val Ser Leu Ala Glu Arg Gly Ser Phe Gly Ala 55 Met Asp Asp Pro Phe Lys Asn Lys Ala Leu Leu Phe Ser Asn Asn Thr 70 75 Gln Glu Leu His Pro Asp Pro Phe Gln Thr Glu Asp Pro Phe Lys Ser 90 Asp Pro Phe Lys Gly Ala Asp Pro Phe Lys Gly Asp Pro Phe Gln Asn 105 Asp Pro Phe Ala Glu Gln Gln Thr Thr Ser Thr Asp Pro Phe Gly Gly 120 125 Asp Pro Phe Lys Glu Ser Asp Pro Phe Arg Gly Ser Ala Thr Asp Asp 135 140 Phe Phe Lys Lys Gln Thr Lys Asn Asp Pro Phe Thr Ser Asp Pro Phe 150 155 Thr Lys Asn Pro Ser Leu Pro Ser Lys Leu Asp Pro Phe Glu Ser Ser

Asp Pro Phe Ser Ser Ser Ser Val Ser Ser Lys Gly Ser Asp Pro Phe
180

Gly Thr Leu Asp Pro Phe Gly Ser Gly Ser Phe Asn Ser Ala Glu Gly
185

Phe Ala Asp Phe Ser Thr 11e Glu Gly Arg Arg Gly
210
215
220

<210> 958 <211> 250 <212>Amino acid <213> Homo sapiens

<400> 958 Arg Thr Arg Gly Gly Ser Gly Asn Ser Ser Gln Pro Ser Leu Arg Glu 5 10 Gly His Asp Lys Pro Val Phe Asn Gly Ala Gly Lys Pro His Ser Ser 20 25 3.0 Thr Ser Ser Pro Ser Val Pro Lys Thr Ser Ala Ser Arg Thr Gln Lys 45 35 40 Ser Ala Val Glu His Lys Ala Lys Lys Ser Leu Ser His Pro Ser His 55 Ser Arg Pro Gly Pro Met Val Thr Pro His Asn Lys Ala Lys Ser Pro 70 75 Gly Val Arg Gln Pro Gly Ser Ser Ser Ser Ser Ala Pro Gly Gln Pro 85 90 Ser Thr Gly Val Ala Arg Pro Thr Val Ser Ser Gly Pro Val Pro Arg 100 105 Arg Gln Asn Gly Ser Ser Ser Ser Gly Pro Glu Arg Ser Ile Ser Gly 115 120 125 Ser Lys Lys Pro Thr Asn Asp Ser Asn Pro Ser Arg Arg Thr Val Ser 135 140 Gly Thr Cys Gly Pro Gly Gln Pro Ala Ser Ser Ser Gly Gly Pro Gly 150 155 Arg Pro Ile Ser Gly Ser Val Ser Ser Ala Arg Pro Leu Gly Ser Ser 165 170 Arg Gly Pro Gly Arg Pro Val Ser Ser Pro His Glu Leu Arg Arg Pro 185 Val Ser Gly Leu Gly Pro Pro Gly Arg Ser Val Ser Gly Pro Gly Arg 200 Ser Ile Ser Gly Ser Ile Pro Ala Gly Arg Thr Val Ser Asn Ser Val 215 220 Pro Gly Arg Pro Val Ser Ser Leu Gly Pro Gly Gln Thr Val Ser Ser 230 235 Ser Gly Pro Thr Ile Lys Pro Lys Cys Thr 245

<210> 959 <211> 48 <212>Amino acid <213> Homo sapiens

<400> 959
Arg Gly Lys Gly Ile Thr Pro Arg Tyr His Leu Cys Ile Ser Asp Pro

529

<210> 960 <211> 63 <212>Amino acid <213> Homo sapiens

<210> 961 <211> 59 <212>Amino acid <213> Homo sapiens

<210> 962 <211> 140 <212>Amino acid

<213> Homo sapiens

 $<\!400>$ 962 Phe Val Glu Arg Leu Ala His Leu His Ala Ala Cys Ala Pro Arg Arg 1 5 10 15 Lys Val Ala Leu Leu Leu Glu Val Cys Arg Asp Val Tyr Ala Gly Leu 25 Ala Arg Gly Glu Asn Gln Asp Pro Leu Gly Ala Asp Ala Phe Leu Pro

40 Ala Leu Thr Glu Glu Leu Ile Trp Ser Pro Asp Ile Gly Asp Thr Gln 55 Leu Asp Val Glu Phe Leu Met Glu Leu Leu Asp Pro Asp Glu Leu Arg 70 75 Gly Glu Ala Gly Tyr Tyr Leu Thr Thr Trp Phe Gly Ala Leu His His 85 90 Ile Ala His Tyr Gln Pro Glu Thr Asp Arg Ala Pro Arg Gly Leu Ser 100 105 110 Ser Glu Ala Arg Ala Ser Leu His Gln Trp His Arg Arg Arg Thr Leu 115 120 His Arg Lys Asp His Pro Arg Ala Gln Gln Leu Asp 135

<210> 963 <211> 153 <212>Amino acid <213> Homo sapiens

<400> 963 Phe Trp Met Asp Pro Tyr Asn Pro Leu Asn Phe Lys Ala Pro Phe Gln 1.0 Thr Ser Gly Glu Asn Glu Lys Gly Cys Arg Asp Ser Lys Thr Pro Ser 25 Glu Ser Ile Val Ala Ile Ser Glu Cys His Thr Leu Leu Ser Cys Lys 40 Val Gln Leu Leu Gly Ser Gln Glu Ser Glu Cys Pro Asp Ser Val Gln 55 Arg Asp Val Leu Ser Gly Gly Arg His Thr His Val Lys Arg Lys 70 75 Val Thr Phe Leu Glu Glu Val Thr Glu Tyr Tyr Ile Ser Gly Asp Glu 90 Asp Arg Lys Gly Pro Trp Glu Glu Phe Ala Arg Asp Gly Cys Arg Phe 100 105 Gln Lys Arg Ile Gln Glu Thr Glu Asp Ala Ile Gly Tyr Cys Leu Thr 120 Phe Glu His Arg Glu Arg Met Phe Asn Arg Leu Gln Gly Thr Cys Phe 135 Lys Gly Leu Asn Val Leu Lys Gln Cys 145 150 153

<210> 964 <211> 54 <212>Amino acid <213> Homo sapiens

50 54

<210> 965 <211> 39

<212>Amino acid <213> Homo sapiens

.....

<400> 965

Gly Phe Val Phe Leu Pro Gly Pro Mat Ser Val Gly Leu Asp Phe Ser 1 1 5 10 15 Leu Pro Gly Met Glu His Val Tyr Gly Ile Pro Glu His Ala Asp Asn 20 25 30 Leu Arg Leu Lys Val Thr Glu

35 35

<210> 966

<211> 130 <212>Amino acid

<213> Homo sapiens

<400> 966

Leu Gly 130

> <210> 967 <211> 259

<212>Amino acid

<213> Homo sapiens

<400> 967

Leu Ile Tyr Asn Glu Asp Met Ile Cys Trp Ile Glu Ser Arg Glu Ser 1 5 10 15 Ser Asn Gln Leu Lys Cys Ile Gln Ile Thr Lys Ala Gly Gly Leu Thr

25 Asp Glu Trp Thr Ile Asn Ile Leu Gln Ser Phe His Asn Val Gln Gln . 40 Met Ala Ile Asp Trp Leu Thr Arg Asn Leu Tyr Phe Val Asp His Val 55 Gly Asp Arg Ile Phe Val Cys Asn Ser Asn Gly Ser Val Cys Val Thr 70 75 Leu Ile Asp Leu Glu Leu His Asn Pro Lys Ala Ile Ala Val Asp Pro 85 90 Ile Ala Gly Lys Leu Phe Phe Thr Asp Tyr Gly Asn Val Ala Lys Val 100 105 110 Glu Arg Cys Asp Met Asp Gly Met Asn Arg Thr Arg Ile Ile Asp Ser 120 125 Lys Thr Glu Gln Pro Ala Ala Leu Ala Leu Asp Leu Val Asn Lys Leu 130 135 140 Val Tyr Trp Val Asp Leu Tyr Leu Asp Tyr Val Gly Val Val Asp Tyr 150 155 Gln Gly Lys Asn Arg His Ala Val Ile Gln Gly Arg Gln Val Arg His 165 170 Leu Tyr Gly Ile Thr Val Phe Glu Asp Tyr Leu Tyr Ala Thr Asn Ser 185 Asp Ser Tyr Asn Ile Val Arg Ile Ser Arg Phe Asn Gly Thr Asp Ile 200 205 His Ser Leu Ile Lys Ile Glu Asn Ala Trp Gly Ile Arg Ile Tyr Gln 215 Lys Arg Thr Gln Pro Thr Val Arg Ser His Ala Cys Glu Val Asp Pro 230 235 Tyr Gly Met Pro Gly Gly Cys Ser His Ile Cys Leu Leu Ser Ser Ser Tyr Thr Lys 259

,259 <210> 968

<211> 161 <212>Amino acid <213> Homo sapiens

<400> 968 Ser Ser Gly Asn Pro Gln Pro Gly Asp Ser Ser Gly Gly Ala Gly . . . 10 Gly Gly Leu Pro Ser Pro Gly Glu Gln Glu Leu Ser Arg Arg Leu Gln 25 Arg Leu Tyr Pro Ala Val Asn Gln Gln Glu Thr Pro Leu Pro Arg Ser 40 Trp Ser Pro Lys Asp Lys Tyr Asn Tyr Ile Gly Leu Ser Gln Gly Asn 55 Leu Arg Val His Tyr Lys Gly His Gly Lys Asn His Lys Asp Ala Ala Ser Val Arg Ala Thr His Pro Ile Pro Ala Ala Cys Gly Ile Tyr Tyr 90 Phe Glu Val Lys Ile Val Ser Lys Gly Arg Asp Gly Tyr Met Gly Ile 105 Gly Leu Ser Ala Gln Gly Val Asn Met Asn Arg Leu Pro Gly Trp Asp 120 Lys His Ser Tyr Gly Tyr His Gly Asp Asp Gly His Ser Phe Cys Ser 135 140 Ser Gly Thr Gly Gln Pro Tyr Gly Pro Thr Phe Thr Thr Gly Asp Val 150 155 Ile

161

<210> 969 <211> 76 <212>Amino acid <213> Homo sapiens

<400> 969 Phe Phe Phe Lys Met Gly Ser Arg Ser Val Thr Gln Ala Gly Val 1 5 1.0 15 Gln Trp Cys Asp Val Ser Ser Leu Gln Ala Pro Pro Pro Arg Phe Thr 25 Leu Phe Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Val Pro 35 40 45 Pro Cys Pro Ala Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe His 55 Arg Val Ser Gln Tyr Gly Leu Asp Leu Leu Thr Ser 70

<210> 970
<211> 267
<212>Amino acid
<213> Home sapiens
<220>
<221> misc_feature
<221> (2)...(267)
<223> X = any amino acid or stop code

180

<400> 970 Gln Leu Ser Leu Ala Arg Gly Lys Val Phe Leu Cys Ala Leu Ser Phe 10 Val Tyr Phe Ala Lys Ala Leu Ala Glu Gly Tyr Leu Lys Ser Thr Ile 25 Thr Gln Ile Glu Arg Arg Val Asp Ile Pro Ser Ser Leu Val Gly Val Ile Asp Gly Ser Phe Glu Ile Gly Asn Leu Leu Val Ile Thr Phe Val 55 60 Ser Tyr Phe Gly Ala Lys Leu His Arg Pro Lys Ile Ile Gly Ala Gly 70 75 Cys Val Ile Met Gly Val Gly Thr Leu Leu Ile Ala Met Pro Gln Phe 90 85 Phe Met Glu Gln Tyr Lys Tyr Glu Arg Tyr Ser Pro Ser Ser Asn Ser 100 105 Thr Leu Ser Ile Ser Pro Cys Leu Leu Glu Ser Ser Ser Gln Leu Pro 120 Val Ser Val Met Glu Lys Ser Lys Ser Lys Ile Ser Asn Glu Cys Glu 135 140 Val Asp Thr Ser Ser Ser Met Trp Ile Tyr Val Phe Leu Gly Asn Leu 150 155 Leu Arg Gly Ile Gly Glu Thr Pro Ile Gln Pro Leu Gly Ile Ala Tyr 165 170 Leu Asp Asp Phe Ala Ser Glu Asp Asn Ala Ala Phe Tyr Ile Gly Cys

190

185

<210> 971 <211> 282 <212>Amino acid <213> Homo sapiens

<400> 971 Gln Pro Ala Gly Arg Val Glu Ala Phe Cys Lys Phe His Met Trp Ala 10 Glu Gly Met Thr Ser Leu Met Lys Ala Ala Leu Asp Leu Thr Tyr Pro 20 25 Ile Thr Ser Met Phe Ser Gly Ala Gly Phe Asn Ser Ser Ile Phe Ser 40 Val Phe Lys Asp Gln Gln Ile Glu Asp Leu Trp Ile Pro Tyr Phe Ala 55 Ile Thr Thr Asp Ile Thr Ala Ser Ala Met Arg Val His Thr Asp Gly 70 75 Ser Leu Trp Arg Tyr Val Arg Ala Ser Met Ser Leu Ser Gly Tyr Met 85 90 Pro Pro Leu Cys Asp Pro Lys Asp Gly His Leu Leu Met Asp Gly Gly 105 100 Tyr Ile Asn Asn Leu Pro Ala Asp Val Ala Arg Ser Met Gly Ala Lys 120 125 Val Val Ile Ala Ile Asp Val Gly Ser Arg Asp Glu Thr Asp Leu Thr 135 140 Asn Tyr Gly Asp Ala Leu Ser Gly Trp Trp Leu Leu Trp Lys Arg Trp 150 155 Asn Pro Leu Ala Thr Lys Val Lys Val Leu Asn Met Ala Glu Ile Gln 170 Thr Arg Leu Ala Tyr Val Cys Cys Val Arg Gln Leu Glu Val Val Lys 185 Ser Ser Asp Tyr Cys Glu Tyr Leu Arg Pro Pro Ile Asp Ser Tyr Ser 200 Thr Leu Asp Phe Gly Lys Phe Asn Glu Ile Cys Glu Val Gly Tyr Gln 215 220 His Gly Arg Thr Val Phe Asp Ile Trp Gly Arg Ser Gly Val Leu Glu 230 235 Lys Met Leu Arg Asp Gln Gln Gly Pro Ser Lys Lys Pro Ala Ser Ala 245 250 Val Leu Thr Cys Pro Asn Ala Ser Phe Thr Asp Leu Ala Glu Ile Val 260 265 Ser Arg Ile Glu Pro Ala Lys Pro Ala Met 275 280 282

<210> 972 <211> 167 <212>Amino acid <213> Homo sapiens

<400> 972 Leu Trp Val Ile Met Phe Val Ser Tyr Leu Ile Leu Thr Leu Leu His 10 Val Gln Thr Ala Val Leu Ala Arg Pro Gly Gly Glu Ser Ile Gly Cys 25 Asp Asp Tyr Leu Gly Ser Asp Lys Val Val Asp Lys Cys Gly Val Cys 40 Gly Gly Asp Asn Thr Gly Cys Gln Val Val Ser Gly Val Phe Lys His 55 Ala Leu Thr Ser Leu Gly Tyr His Arg Val Val Glu Ile Pro Glu Gly 70 Ala Thr Lys Ile Asn Ile Thr Glu Met Tyr Lys Ser Asn Asn Tyr Leu 90 Ala Leu Arg Ser Arg Ser Gly Arg Ser Ile Ile Asn Gly Asn Trp Ala 100 105 Ile Asp Arg Pro Gly Lys Tyr Glu Gly Gly Gly Thr Met Phe Thr Tyr 115 120 Lys Arg Pro Asn Glu Ile Ser Ser Thr Ala Gly Glu Ser Phe Leu Ala 135 140 Glu Gly Pro Thr Asn Glu Ile Leu Asp Val Tyr Val Ser Leu Asp Val 150 155 Ser Gly Leu Phe Phe Gly Phe 165 167

<210> 973 <211> 140 <212>Amino acid <213> Homo sapiens

<400> 973 Ile Ser Gly Gly Thr Arg Ser Ala Gly Pro Leu Arg Arg Asn Tyr Asn 10 Phe Ile Ala Ala Val Val Glu Lys Val Ala Pro Ser Val Val His Val 20 25 Gln Leu Trp Gly Arg Asn Gln Gln Trp Ile Glu Val Val Leu Gln Asn 40 Gly Ala Arg Tyr Glu Ala Val Val Lys Asp Ile Asp Leu Lys Leu Asp 55 Leu Ala Val Ile Lys Ile Glu Ser Asn Ala Glu Leu Pro Val Leu Met 70 75 Leu Gly Arg Ser Ser Asp Leu Arg Ala Gly Glu Phe Val Val Ala Leu 90 Gly Ser Pro Phe Ser Leu Gln Asn Thr Ala Thr Ala Gly Ile Val Ser 105 Thr Lys Gln Arg Gly Gly Lys Glu Leu Gly Met Lys Asp Ser Asp Met 120 Asp Tyr Val Gln Ile Asp Ala Thr Ile Asn Tyr Gly 135

<210> 974 <211> 286

<212>Amino acid

<213> Homo sapiens

<400> 974 Pro Arg Val Arg Glu Leu Lys Glu Ile Leu Asp Arg Lys Gly His Phe 5 10 Ser Glu Asn Glu Thr Arg Trp Ile Ile Gln Ser Leu Ala Ser Ala Ile 20 25 Ala Tyr Leu His Asn Asn Asp Ile Val His Arg Asp Leu Lys Leu Glu 40 Asn Ile Met Val Lys Ser Ser Leu Ile Asp Asp Asn Asn Glu Ile Asn 55 Leu Asn Ile Lys Val Thr Asp Phe Gly Leu Ala Val Lys Lys Gln Ser 70 75 Arg Ser Glu Ala Met Leu Gln Ala Thr Cys Gly Thr Pro Ile Tyr Met 85 90 Ala Pro Glu Val Ile Ser Ala His Asp Tyr Ser Gln Gln Cys Asp Ile 105 710 Trp Ser Ile Gly Val Val Met Tyr Met Leu Leu Arg Gly Glu Pro Pro 120 125 Phe Leu Ala Ser Ser Glu Glu Lys Leu Phe Glu Leu Ile Arg Lys Gly 135 140 Glu Leu His Phe Glu Asn Ala Val Trp Asn Ser Ile Ser Asp Cys Ala 145 . 150 155 Lys Ser Val Leu Lys Gln Leu Met Lys Val Asp Pro Ala His Arg Ile 165 175 170 Thr Ala Lys Glu Leu Leu Asp Asn Gln Trp Leu Thr Gly Asn Lys Leu 180 185 Ser Ser Val Arg Pro Thr Asn Val Leu Glu Met Met Lys Glu Trp Lys 200 205 Asn Asn Pro Glu Ser Val Glu Glu Asn Thr Thr Glu Glu Lys Asn Lys 215 220 Pro Ser Thr Glu Glu Lys Leu Lys Ser Tyr Gln Pro Trp Gly Asn Val 230 235 Pro Glu Thr Asn Tyr Thr Ser Asp Glu Glu Glu Glu Lys Gln Val Gly 245 250 255 Arg Ile Ile Ala Ala Phe Leu Pro Ser Val Lys Tyr Pro His His Thr 260 265 Trp Asn Ile Phe Leu Gln Ile Cys Leu Phe Val Val Ser Leu 275 280

<210> 975 <211> 155 <212>Amino acid <213> Homo sapiens

Lys Asp Val Lys Tyr Leu Lys Glu Glu Asp Ala Asn Arg Lys Thr Phe 95 90 95

Thr Val Ser Ser Thr Leu Asp Phe Arg Val Asp Arg Ser Asp Asp Gly 100 105 110

Val Ala Val Ile Cys Arg Val Asp His Glu Ser Leu Asn Ala Thr Pro 115 120

Gln Val Ala Met Gln Val Leu Glu Met His Tyr Thr Pro Ser Val Lys 130 135 140

Tle Ile Pro Ser Thr Pro Phe Pro Gln Glu Gly 155

<210> 976 <211> 137 <212>Amino acid <213> Homo sapiens

<400> 976 Tyr Asn Gln Lys Val Asp Leu Phe Ser Leu Gly Ile Ile Phe Phe Glu Met Ser Tyr His Pro Met Val Thr Ala Ser Glu Arg Ile Phe Val Leu 20 25 Asn Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp 40 Asp Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn 55 60 His Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Leu Lys Ser Glu 70 75 Leu Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu 8.5 90 His His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Ile Asp 100 105 110 Gly Pro Arg Ser Phe Arg Gln Arg Ile Ser Pro Ala Ile Ala Tyr Thr 115 120 Tyr Asp Ser Asp Ile Leu Lys Gly Asn 135 137

<210> 977 <211> 246 <212>Amino acid <213> Homo sapiens

1.0

Ala Ala Thr Glu Val Ser Leu Leu Ala Gly Ser Glu Glu Phe Asn Ala 100 105 Thr Lys Leu Phe Glu Val Asp Thr Asp Ser Cys Glu Arg Trp Met Ser 120 Cys Lys Ser Glu Phe Leu Lys Lys Tyr Met His Lys Val Met Asn Asp 135 140 Leu Pro Ser Cys Pro Cys Ser Tyr Pro Thr Glu Val Ala Tyr Ser Thr 155 150 Ala Asp Ile Phe Asp Arg Ile Lys Arg Lys Asp Phe Arg Trp Lys Asp 170 Ala Ser Gly Pro Lys Glu Lys Leu Glu Ile Tyr Lys Pro Thr Ala Arg 185 Tyr Cys Ile Arg Ser Met Leu Ser Leu Glu Ser Thr Thr Leu Ala Ala 200 Gln His Cys Cys Tyr Gly Asp Asn Met Gln Leu Ile Thr Arg Gly Lys 215 220 Gly Ala Gly Thr Pro Asn Leu Ile Ser Thr Glu Phe Ser Ala Glu Leu 230 235 His Tyr Lys Val Asp Val 245 246

<210> 978 <211> 203 <212>Amino acid <213> Homo sapiens

<400> 978

Glu Ser Glu Glu Asn Gly Glu Ser Ala Met Asp Ser Thr Val Ala Lys 10 Glu Gly Thr Asn Val Pro Leu Val Ala Ala Gly Pro Cys Asp Asp Glu 25 Gly Ile Val Thr Ser Thr Gly Ala Lys Glu Glu Asp Glu Glu Gly Glu 40 Asp Val Val Thr Ser Thr Gly Arg Gly Asn Glu Ile Gly His Ala Ser 55 Thr Cys Thr Gly Leu Gly Glu Glu Ser Glu Gly Val Leu Ile Cys Glu 70 75 Ser Ala Glu Gly Asp Ser Gln Ile Gly Thr Val Val Glu His Val Glu 85 90 Ala Glu Ala Gly Ala Ala Ile Met Asn Ala Asn Glu Asn Asn Val Asp 100 105 Ser Met Ser Gly Thr Glu Lys Gly Ser Lys Asp Thr Asp Ile Cys Ser 120 Ser Ala Lys Gly Ile Val Glu Ser Ser Val Thr Ser Ala Val Ser Gly 135 Lys Asp Glu Val Thr Pro Val Pro Gly Gly Cys Glu Gly Pro Met Thr 150 1.55 Ser Ala Ala Ser Asp Gln Ser Asp Ser Gln Leu Glu Lys Val Glu Asp 170 165 Thr Thr Ile Ser Thr Gly Leu Val Gly Gly Ser Tyr Asp Val Leu Val 180 185 Ser Gly Glu Val Pro Glu Cys Glu Val Ala His 200 203

<210> 979

<211> 94

<212>Amino acid

<213> Homo sapiens

<210> 980 <211> 226 <212>Amino acid <213> Homo sapiens

<400> 980 Gln His Pro Ser Gln Glu Lys Pro Gln Val Leu Thr Pro Ser Pro Arg 10 Lys Gln Lys Leu Asn Arg Lys Tyr Arg Ser His His Asp Gln Met Ile Cys Lys Cys Leu Ser Leu Ser Ile Ser Tyr Ser Ala Thr Ile Gly Gly 40 Leu Thr Thr Ile Ile Gly Thr Ser Thr Ser Leu Ile Phe Leu Glu His 55 Phe Asn Asn Gln Tyr Pro Ala Ser Glu Val Val Asn Phe Gly Thr Trp 70 75 Phe Leu Phe Ser Phe Pro Ile Ser Leu Ile Met Leu Val Val Ser Trp 85 90 Phe Trp Met His Trp Leu Phe Leu Gly Cys Asn Phe Lys Glu Thr Cys 100 105 Ser Leu Ser Lys Lys Lys Thr Lys Arg Glu Gln Leu Ser Glu Lys 120 Arg Ile Glu Glu Glu Tyr Glu Lys Leu Gly Asp Ile Ser Tyr Pro Glu 135 Met Val Thr Gly Phe Phe Phe Ile Leu Met Thr Val Leu Trp Phe Thr 1.50 155 Arg Glu Pro Gly Phe Val Pro Gly Trp Asp Ser Phe Phe Glu Lys Lys 170 175 Gly Tyr Arg Thr Asp Ala Thr Val Ser Val Phe Leu Gly Phe Leu Leu 180 185 Phe Leu Ile Pro Ala Lys Lys Pro Cys Phe Gly Lys Lys Asn Asp Gly 195 200 205 Glu Asn Gln Glu His Ser Leu Gly Thr Glu Pro Ile Ile Thr Trp Lys 210 215 Asp Phe 225 226

<210> 981 <211> 163

<212>Amino acid <213> Homo sapiens

<400> 981 Leu Glu Arg Glu Gly Asp Lys Gly Thr Pro Val Leu Arg Gly Phe Ser 10 Ser Val Ser Gly Ser Trp Ser Arg Arg Met Pro Pro Phe Leu Leu Leu 25 Thr Cys Leu Phe Ile Thr Gly Thr Ser Val Ser Pro Val Ala Leu Asp Pro Cys Ser Ala Tyr Ile Ser Leu Asn Glu Pro Trp Arg Asn Thr Asp 55 His Gln Leu Asp Glu Ser Gln Gly Pro Pro Leu Cys Asp Asn His Val 70 Asn Gly Glu Trp Tyr His Phe Thr Gly Met Ala Gly Asp Ala Met Pro 90 Thr Phe Cys Ile Pro Glu Asn His Cys Gly Thr His Ala Pro Val Trp 105 Leu Asn Gly Ser His Pro Leu Glu Gly Asp Gly Ile Val Gln Arg Gln 115 120 Ala Cys Ala Ser Phe Asn Gly Asn Cys Cys Leu Trp Asn Thr Thr Val 135 140 Glu Val Lys Ala Cys Pro Gly Gly Tyr Tyr Val Tyr Arg Leu Thr Lys 150 Pro Ser Val 163

<210> 982 <211> 327 <212>Amino acid <213> Homo sapiens

<400> 982 Cys Gly Arg Thr Met Ser Asp Ile Arg His Ser Leu Leu Arg Arg Asp 10 Ala Leu Ser Ala Ala Lys Glu Val Leu Tyr His Leu Asp Ile Tyr Phe 20 Ser Ser Gln Leu Gln Ser Ala Pro Leu Pro Ile Val Asp Lys Gly Pro Val Glu Leu Leu Glu Glu Phe Val Phe Gln Val Pro Lys Glu Arg Ser 55 Ala Gln Pro Lys Arg Leu Asn Ser Leu Gln Glu Leu Gln Leu Leu Glu 70 75 Ile Met Cys Asn Tyr Phe Gln Glu Gln Thr Lys Asp Ser Val Arg Gln 90 Ile Ile Phe Ser Ser Leu Phe Ser Pro Gln Gly Asn Lys Ala Asp Asp 1.05 Ser Arg Met Ser Leu Leu Gly Lys Leu Val Ser Met Ala Val Ala Val 120 Cys Arg Ile Pro Val Leu Glu Cys Ala Ala Ser Trp Leu Gln Arg Thr 135 140 Pro Val Val Tyr Cys Val Arg Leu Ala Lys Ala Leu Val Asp Asp Tyr 150 155 Cys Cys Leu Val Pro Gly Ser Ile Gln Thr Leu Lys Gln Ile Phe Ser 165

Ala Ser Pro Arg Phe Cys Cys Gln Phe Ile Thr Ser Val Thr Ala Leu 185 Tyr Asp Leu Ser Ser Asp Asp Leu Ile Pro Pro Met Asp Leu Leu Glu 200 205 Met Ile Val Thr Trp Ile Phe Glu Asp Pro Arg Leu Ile Leu Ile Thr 215 220 Phe Leu Asn Thr Pro Ile Ala Ala Asn Leu Pro Ile Gly Phe Leu Glu 235 230 Leu Thr Pro Leu Val Gly Leu Ile Arg Trp Cys Val Lys Ala Pro Leu 250 Ala Tyr Lys Arg Lys Lys Pro Pro Leu Ser Asn Gly His Val Ser 265 260 Asn Lys Val Thr Lys Asp Pro Gly Val Gly Met Asp Arg Asp Ser His 285 280 Leu Leu Tyr Ser Lys Leu His Leu Ser Val Leu Gln Val Leu Met Thr 290 295 300 Leu Gln Leu His Leu Thr Glu Lys Asn Leu Tyr Gly Pro Pro Gly Ala 305 310 315 Asp Pro Leu Arg Pro His Gly 325 327

<210> 983 <211> 110 <212>Amino acid <213> Homo sapiens

<400> 983 Ser Ala Cys Ser Thr Gly Pro Glu Leu Pro Gly Arg Ala Thr Arg Ser 10 Leu Thr Arg Pro Ala Asn Gln Lys Gly Cys Asp Gly Asp Arg Leu Tyr 25 Tyr Asp Gly Cys Ala Met Ile Ala Met Asn Gly Ser Val Phe Ala Gln 35 40 Gly Ser Gln Phe Ser Leu Asp Asp Val Glu Val Leu Thr Ala Thr Leu 55 Asp Leu Glu Asp Val Arg Ser Tyr Arg Ala Glu Ile Ser Ser Arg Asn 70 75 Leu Ala Val Ser Ala Pro Val Asp Thr Cys Val Gly Cys Ser Ser Lys 85 90 Thr Trp Lys Val Ala Pro Phe Val Arg Ala Trp Trp Arg Pro 100 105

<210> 984 <211> 80 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} 4000>984\\ \mathrm{Ala\ Pro\ leu\ Ser\ Arg\ Leu\ Cys\ Phe\ Pro\ Gln\ Val\ Leu\ Val\ Asn\ Glu\ Gly\\ 1 & 5 & 10\\ \mathrm{Gly\ Gly\ Phe\ Asp\ Arg\ Ala\ Ser\ Gly\ Ser\ Phe\ Val\ Ala\ Pro\ Val\ Arg\ Gly\\ 20 & 25\\ \mathrm{Val\ Tyr\ Ser\ Phe\ His\ Val\ Val\ Lys\ Val\ Tyr\ Asn\ Arg\ Gln\ Thr}\\ 3 & 40\\ \end{array}$

Val Gln Val Thr Ser Ala Leu Ala Pro Ile Pro Gly Ser Gly Gly Trp 50 55 60 619 Gly Gly Gly Gly Gly Gly Arg Gly Ala Gln Leu Thr Ser Gly Trp Thr Leu His 65 70 75 80

<210> 985 <211> 235 <212>Amino acid <213> Homo sapiens

<400> 985 Pro His Ile Ile Gly Ala Glu Asp Asp Phe Gly Thr Glu His Glu Gln Ile Asn Gly Gln Cys Ser Cys Phe Gln Ser Ile Glu Leu Leu Lys 25 Ser Arg Pro Ala His Leu Ala Val Phe Leu Arg His Val Val Ser Gln 40 Phe Asp Pro Ala Thr Leu Leu Cys Tyr Leu Tyr Ser Asp Leu Tyr Lys 55 His Thr Asn Ser Lys Glu Thr Arg Arg Ile Phe Leu Glu Phe His Gln 70 75 Phe Phe Leu Asp Arg Ser Ala His Leu Lys Val Ser Val Pro Asp Glu 90 Met Ser Ala Asp Leu Glu Lys Arg Arg Pro Glu Leu Ile Pro Glu Asp 100 105 Leu His Arg His Tyr Ile Gln Thr Met Gln Glu Arg Val His Pro Glu 120 Val Gln Arg His Leu Glu Asp Phe Arg Gln Lys Arg Ser Met Gly Leu 135 Thr Leu Ala Glu Ser Glu Leu Thr Lys Leu Asp Ala Glu Arg Asp Lys 150 155 Asp Arg Leu Thr Leu Glu Lys Glu Arg Thr Cys Ala Glu Gln Ile Val 165 170 Ala Lys Ile Glu Glu Val Leu Met Thr Ala Gln Ala Val Glu Glu Asp 180 185 Lys Ser Ser Thr Met Gln Tyr Val Ile Leu Met Tyr Met Lys His Leu 200 Gly Val Lys Val Lys Glu Pro Arg Asn Leu Glu His Lys Arg Gly Arg 215 Ile Gly Phe Leu Pro Lys Ile Lys Gln Ser Met 225 230

<210> 986 <211> 140 <212>Amino acid <213> Homo sapiens

4400> 986
Ser Pro Gly Thr Gly Arg Gly Pro Gly Pro Thr Ser Phe Val Cys Leu
1
1
5
10
15
10
15
Pro Thr Pro Gln Cys Pro Phe Ile Asp Asp Phe Ile Leu Ala Leu His
20
25
30

Arg Lys Ile Lys Asn Glu Pro Val Val Phe Pro Glu Gly Pro Glu Ile

35

Ser Glu Glu Leu Lys Asp Leu Ile Leu Lys Met Leu Asp Lys Asn Pro
50

Glu Thr Arg Ile Gly Val Pro Asp Ile Lys Leu His Pro Trp Val Thr
65

70

Lys Asn Gly Glu Glu Pro Leu Pro Ser Glu Glu Glu His Cys Ser Val
85

Val Glu Val Thr Glu Glu Glu Val Lys Asn Ser Val Arg Leu Ile Pro
100

105

Ser Trp Thr Thr Val Ile Leu Val Lys Ser Met Leu Arg Lys Arg Ser
115

Ple Gly Asn Pro Phe Glu Pro Gin Ala Arg Met Ala
130

<210> 987 <211> 242 <212>Amino acid <213> Homo sapiens

<400> 987 His Ala Ser Gly Ile Lys Ile Asp Lys Thr Ser Asp Gly Pro Lys Leu 10 Phe Leu Thr Glu Glu Asp Gln Lys Lys Leu His Asp Phe Glu Glu Gln Cys Val Glu Met Tyr Phe Asn Glu Lys Asp Asp Lys Phe His Ser Gly Ser Glu Glu Arg Ile Arg Val Thr Phe Glu Arg Val Glu Gln Met Cys 55 Ile Gln Ile Lys Glu Val Gly Asp Arg Val Asn Tyr Ile Lys Arg Ser Leu Gln Ser Leu Asp Ser Gln Ile Gly His Leu Gln Asp Leu Ser Ala 90 Leu Thr Val Asp Thr Leu Lys Thr Leu Thr Ala Gln Lys Ala Ser Glu 105 Ala Ser Lys Val His Asn Glu Ile Thr Arg Glu Leu Ser Ile Ser Lys 120 His Leu Ala Gln Asn Leu Ile Asp Asp Gly Pro Val Arg Pro Ser Val 135 Trp Lys Lys His Gly Val Val Asn Thr Leu Ser Ser Ser Leu Pro Gln 150 155 Gly Asp Leu Glu Ser Asn Asn Pro Phe His Cys Asn Ile Leu Met Lys 170 Asp Asp Lys Asp Pro Gln Cys Asn Ile Phe Gly Gln Asp Leu Pro Ala 185 Val Pro Gln Arg Lys Glu Phe Asn Phe Pro Glu Ala Gly Ser Ser Ser 200 Gly Ala Leu Phe Pro Ser Ala Val Ser Pro Pro Glu Leu Arg Gln Arg 215 220 Leu His Gly Val Glu Leu Leu Lys Ile Phe Asn Lys Lys Gln Lys Lys 225 230 235 Arg Ala

<210> 988

<211> 154

<212>Amino acid <213> Homo sapiens

<400> 988 Cys Cys Arg Trp Ile Asp Cys Phe Ala Leu Tyr Asp Gln Gln Glu Glu Leu Val Arg His Ile Glu Lys Val His Ile Asp Gln Arg Lys Gly Glu 25 Asp Phe Thr Cys Phe Trp Ala Gly Cys Pro Arg Arg Tyr Lys Pro Phe 40 Asn Ala Arg Tyr Lys Leu Leu Ile His Met Arg Val His Ser Gly Glu 55 Lys Pro Asn Lys Cys Thr Phe Glu Gly Cys Glu Lys Ala Phe Ser Arg 70 75 Leu Glu Asn Leu Lys Ile His Leu Arg Ser His Thr Gly Glu Lys Pro 85 90 Tyr Leu Cys Gln His Pro Gly Cys Gln Lys Ala Phe Ser Asn Ser Ser 100 105 Asp Arg Ala Lys His Gln Arg Thr His Leu Asp Thr Lys Pro Tyr Ala 120 125 Cys Gln Ile Pro Gly Cys Thr Lys Arg Tyr Thr Asp Pro Ser Ser Leu 135 Arg Lys His Val Lys Ala His Ser Ser Lys 150

<210> 989 <211> 65 <212>Amino acid <213> Homo sapiens

<210> 990 <211> 297 <212>Amino acid <213> Homo sapiens

Leu Met Asn Lys Met Asp Asp Leu Asn Leu His Tyr Arg Phe Leu Asn 40 Trp Arg Arg Arg Ile Arg Glu Ile Arg Glu Val Arg Ala Phe Arg Tyr Gln Glu Arg Phe Lys His Ile Leu Val Asp Gly Asp Thr Leu Ser Tyr 75 70 His Gly Asn Ser Gly Glu Val Gly Cys Tyr Val Ala Ser Arg Pro Leu 90 Thr Lys Asp Ser Asn Tyr Phe Glu Val Ser Ile Val Asp Ser Gly Val 105 . Arg Gly Thr Ile Ala Val Gly Leu Val Pro Gln Tyr Tyr Ser Leu Asp 120 His Gln Pro Gly Trp Leu Pro Asp Ser Val Ala Tyr His Ala Asp Asp 135 140 Gly Lys Leu Tyr Asn Gly Arg Ala Lys Gly Arg Gln Phe Gly Ser Lys 150 155 Cys Asn Ser Gly Asp Arg Ile Gly Cys Gly Ile Glu Pro Val Ser Phe 165 170 Asp Val Gln Thr Ala Gln Ile Phe Phe Thr Lys Asn Gly Lys Arg Val 180 185 190 Gly Ser Thr Ile Met Pro Met Ser Pro Asp Gly Leu Phe Pro Ala Val 200 Gly Met His Ser Leu Gly Glu Glu Val Arg Leu His Leu Asn Ala Glu 215 220 Leu Gly Arg Glu Asp Asp Ser Val Met Met Val Asp Ser Tyr Glu Asp 230 235 Glu Trp Gly Arg Leu His Asp Val Arg Val Cys Gly Thr Leu Leu Glu 245 250 Tyr Leu Gly Lys Gly Lys Ser Ile Val Asp Val Gly Leu Ala Gln Ala 260 265 Arg His Pro Leu Ser Thr Arg Ser His Tyr Phe Glu Val Glu Ile Val 280 Asp Pro Gly Glu Lys Cys Tyr Ile Ala 295

> <210> 991 <211> 207 <212>Amino acid <213> Homo sapiens

<400> 991 Gln Gln Ala Glu Glu His Leu Ala Ala Tyr Ser Val Ser Asp Ser Asp 10 Ser Gly Lys Asp Pro Ser Met Glu Cys Cys Arg Arg Ala Thr Pro Gly 25 Thr Leu Leu Leu Phe Leu Ala Phe Leu Leu Leu Ser Ser Arg Thr Ala 40 Arg Ser Glu Glu Asp Arg Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys Ser Arg Thr Cys Gly Gly Gly Ala Ser Tyr Ser Leu Arg 70 75 Arg Cys Leu Ser Ser Lys Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg 90 Thr Cys Ser Asn Val Asp Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala 105 Gln Gln Cys Ser Ala His Asn Asp Val Lys His His Gly Gln Phe Tyr 120 125 Glu Trp Leu Pro Val Ser Asn Asp Pro Asp Asn Pro Cys Ser Leu Lys 130 135

Cys Gln Ala Lys Gly Thr Thr Leu Val Val Glu Leu Ala Pro Lys Val
145 150 150 160
Leu Asp Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp Met Cys Tle Ser
145 170 170 170
Gly Leu Cys Gln Val Ser Ala Asp Leu Phe Ser Phe Asn Leu Ser Arg
180 185 185 190
Gly Phe Gln Cys Leu Cys Val Asn Gly Leu His Ser Leu Thr Leu
195 200 200 205 207

<210> 992 <211> 184 <212>Amino acid <213> Homo sapiens

<400> 992 Arg Leu Leu Arg Gln Glu Leu Val Val Leu Cys His Leu His His Pro 10 Ser Leu Ile Ser Leu Leu Ala Ala Gly Ile Arg Pro Arg Met Leu Val 25 Met Glu Leu Ala Ser Lys Gly Ser Leu Asp Arg Leu Leu Gln Gln Asp 40 Lys Ala Ser Leu Thr Arg Thr Leu Gln His Arg Ile Ala Leu His Val 55 Ala Asp Gly Leu Arg Tyr Leu His Ser Ala Met Ile Ile Tyr Arg Asp 70 75 Leu Lys Pro His Asn Val Leu Leu Phe Thr Leu Tyr Pro Asn Ala Ala a٨ Ile Ile Ala Lys Ile Ala Asp Tyr Gly Ile Ala Gln Tyr Cys Cys Arg 105 Met Gly Ile Lys Thr Ser Glu Gly Thr Pro Gly Phe Arg Ala Pro Glu 120 Val Ala Arg Gly Asn Val Ile Tyr Asn Gln Gln Ala Asp Val Tyr Ser 135 Phe Gly Leu Leu Tyr Asp Ile Leu Thr Thr Gly Gly Arg Ile Val 150 155 Glu Gly Leu Lys Phe Pro Asn Glu Phe Asp Glu Leu Glu Ile Gln Gly 165 170 Lys Leu Pro Asp Pro Val Lys Glu 180 184

<210> 993 <211> 144 <212>Amino acid <213> Homo sapiens

4400> 993 Lys Ala Ser Asn Ser Thr His Glu Phe Arg Ile Gly Leu Pro Glu Gly 1 15 17 160 Lys Lys Ala Val Ile Pro Leu Gly Ile Gly Pro Pro 20 25 30 Leu Thr Leu Ile Cys Leu Gly Val Leu Gly Gly Ile Leu Ile Tyr Gly 35 40 45 Ser Lys Gly Phe Gln Thr Ala His Phe Tyr Leu Lys Asp Ser Pro Ser 50

 Pro
 Lys
 Val
 I le
 Ser
 Thr
 Pro
 Pro
 Pro
 I le
 Ser
 Lys
 80
 75
 80
 80
 80
 95
 95
 95
 95
 95
 95
 95
 95
 95
 95
 96
 91
 Pro
 I lys
 I lys

<210> 994 <211> 147 <212>Amino acid <213> Homo sapiens

<400> 994 Ser Phe Pro Asp Arg Thr Ala Ser Leu Val Leu Leu Ser Val Pro Val 10 Gly Gln Ala Gly Met Gln Gln Arg Gly Leu Ala Ile Val Ala Leu Ala Val Cys Ala Ala Leu His Ala Ser Pro Ala Ile Leu Pro Ile Ala Ser 40 Ser Cys Cys Thr Glu Val Ser His His Ile Ser Arg Arg Leu Leu Glu 55 Arg Val Asn Met Cys Arg Ile Gln Arg Ala Asp Gly Asp Cys Asp Leu 70 Ala Ala Val Ile Leu His Val Lys Arg Arg Arg Ile Cys Val Ser Pro 90 His Asn His Thr Val Lys Gln Trp Met Lys Val Gln Ala Ala Lys Lys 105 100 Asn Gly Lys Gly Asn Val Cys His Arg Lys Lys His His Gly Lys Arg 120 Asn Ser Asn Arg Ala His Gln Gly Lys His Glu Thr Tyr Gly His Lys 135 140 130 Thr Pro Tyr 145 147

<210> 995 <211> 245 <212>Amino acid <213> Homo sapiens

<400>995
Phe Glu Gln Pro Gly Asn Pro Gly Asp Pro Arg Val Arg Thr Pro Pro 1 10 10 15 15
Pro Trp Gly Pro His Phe Phe Ala Leu Ile Pro Ser Ser Pro Lys Glu 20 25 30
Val Pro Ala Thr Pro Ser Ser Arg Arg Asp Pro Ile Ala Pro Thr Ala 35 5 40 45
Thr Leu Leu Ser Lys Lys Thr Pro Ala Thr Leu Ala Pro Lys Glu Ala 50
50

Leu Ile Pro Pro Ala Met Thr Val Pro Ser Pro Lys Lys Thr Pro Ala 70 75 Ile Pro Thr Pro Lys Glu Ala Pro Ala Thr Pro Ser Ser Lys Glu Ala 85 90 Ser Ser Pro Pro Ala Val Thr Pro Ser Thr Tyr Lys Gly Ala Pro Ser 105 Pro Lys Glu Leu Leu Ile Pro Pro Ala Val Thr Ser Pro Ser Pro Lys 120 Glu Ala Pro Thr Pro Pro Ala Val Thr Pro Pro Ser Pro Glu Lys Gly 135 140 Pro Ala Thr Pro Ala Pro Lys Gly Thr Pro Thr Ser Pro Pro Val Thr 150 155 Pro Ser Ser Leu Lys Asp Ser Pro Thr Ser Pro Ala Ser Val Thr Cys 170 175 165 Lys Met Gly Ala Thr Val Pro Gln Ala Ser Lys Gly Leu Pro Ala Lys 180 185 Lys Gly Pro Thr Ala Leu Lys Glu Val Leu Val Ala Pro Ala Pro Glu 200 205 Ser Thr Pro Ile Ile Thr Ala Pro Thr Arg Lys Gly Pro Gln Thr Lys 215 220 Lys Ser Ser Ala Thr Ser Pro Pro Ile Cys Pro Asp Pro Ser Ala Lys 225 230 235 Asn Gly Ser Lys Gly 245

<210> 996 <211> 25

> <212>Amino acid <213> Homo sapiens

<210> 997 <211> 56 <212>Amino acid <213> Homo sapiens

<210> 998 <211> 198

<212>Amino acid <213> Homo sapiens

<400> 998 Tro Met Arg Ala Pro Met Leu Gln Lys Gln Gln Ala Pro Arg Met Asp Thr Pro Pro Pro Glu Glu Arq Leu Glu Lys Gln Asn Glu Lys Leu Asn Asn Gln Glu Glu Glu Thr Glu Phe Lys Glu Leu Asp Gly Leu Arq Glu Ala Leu Ala Asn Leu Arq Gly Leu Ser Glu Glu Glu Arg Ser Glu Lys 55 Ala Met Leu Arg Ser Arg Ile Glu Glu Gln Ser Gln Leu Ile Cys Ile 70 75 Leu Lys Arg Arg Ser Asp Glu Ala Leu Glu Arg Cys Gln Ile Leu Glu 85 90 Leu Leu Asn Ala Glu Leu Glu Glu Lys Met Met Gln Glu Ala Glu Lys 100 105 Leu Lys Ala Gln Gly Glu Tyr Ser Arg Lys Leu Glu Glu Arg Phe Met 115 120 125 Thr Leu Ala Ala Asn His Glu Leu Met Leu Arg Phe Lys Asp Glu Tyr 130 135 140 Lys Ser Glu Asn Ile Lys Leu Arg Glu Glu Asn Glu Lys Leu Arg Leu 145 150 155 Glu Asn Asn Ser Leu Phe Ser Gln Ala Leu Lys Asp Glu Glu Ala Lys 165 170 Val Leu Gln Leu Thr Val Arg Cys Glu Ala Leu Thr Gly Glu Leu Glu 180 185 Thr Leu Lys Glu Arg Cys 195 198

<210> 999 <211> 79 <212>Amino acid <213> Homo sapiens

<210> 1000 <211> 206

<211> 206 <212>Amino acid <213> Homo sapiens

<400> 1000 Val Thr Thr Thr His Ser Val Gly Arg Gly His Glu Leu Gln Leu Leu Asn Glu Glu Leu Arg Asn Ile Glu Leu Glu Cys Gln Asn Ile Met Gln Ala His Arq Leu Gln Lys Val Thr Asp Gln Tyr Gly Asp Ile Trp Thr Leu His Asp Gly Gly Phe Arg Asn Tyr Asn Thr Ser Ile Asp Met Gln Arg Gly Lys Leu Asp Asp Ile Met Glu His Pro Glu Lys Ser Asp 70 75 Lys Asp Ser Ser Ser Ala Tyr Asn Thr Ala Glu Ser Cys Arg Ser Thr 85 90 Pro Leu Thr Val Asp Arg Ser Pro Asp Ser Ser Leu Pro Arg Val Ile 105 Asn Leu Thr Asn Lys Lys Asn Leu Arg Ser Thr Met Ala Ala Thr Gln 120 Ser Ser Ser Gly Gln Ser Ser Lys Glu Ser Thr Ser Thr Lys Ala Lys 140 135 Thr Thr Glu Gln Gly Cys Ser Ala Glu Ser Lys Glu Lys Val Leu Glu 155 150 Gly Ser Lys Leu Pro Asp Gln Glu Lys Ala Val Ser Glu His Ile Pro 165 170 Tyr Leu Ser Pro Tyr His Ser Ser Ser Tyr Arg Tyr Ala Asn Ile Pro 180 185 Ala His Ala Arg His Tyr Gln Ser Tyr Met Gln Leu Ile Gln 200

<210> 1001 <211> 138 <212>Amino acid <213> Homo sapiens

<210> 1002 <211> 133

<212>Amino acid <213> Homo sapiens

<400> 1002 Gln Ala Ala Asn Met Ala Val Ala Arg Val Asp Ala Ala Leu Pro Pro 10 Gly Glu Gly Ser Val Val Asn Trp Ser Gly Gln Gly Leu Gln Lys Leu 25 20 Gly Pro Asn Leu Pro Cys Glu Ala Asp Ile His Thr Leu Ile Leu Asp Lys Asn Gln Ile Ile Lys Leu Glu Asn Leu Glu Lys Cys Lys Arg Leu 55 Ile Gln Leu Ser Val Ala Asn Asn Arg Leu Val Arg Met Met Gly Val 70 75 Ala Lys Leu Thr Leu Leu Arg Val Leu Asn Leu Pro His Asn Ser Ile 85 90 Gly Cys Val Glu Gly Leu Lys Glu Leu Val His Leu Glu Trp Leu Asn 105 Leu Ala Gly Asn Asn Leu Ile Ala Met Glu Gln Ile Asn Ser Cys Thr 120 115 Ala Leu Gln His Leu

<210> 1003 <211> 276 <212>Amino acid <213> Homo sapiens

133

130

<400> 1003 Phe Arg Ala Ala Val Gly Ala Val Pro Glu Gly Ala Trp Lys Asp Thr 10 Ala Gln Leu His Lys Ser Glu Glu Ala Lys Arg Val Leu Arg Tyr Tyr 20 25 Leu Phe Gln Gly Gln Arg Tyr Ile Trp Ile Glu Thr Gln Gln Ala Phe Tyr Gln Val Ser Leu Leu Asp His Gly Arg Ser Cys Asp Asp Val His 55 Arg Ser Arg His Gly Leu Ser Leu Gln Asp Gln Met Glu Arg Lys Ala Ile Tyr Gly Pro Asn Val Ile Ser Ile Pro Val Lys Ser Tyr Pro Gln 90 Leu Leu Val Asp Glu Ala Phe Ser Ile Ala Leu Trp Leu Ala Asp His 105 Tyr Tyr Trp Tyr Ala Leu Cys Ile Phe Leu Ile Ser Ser Ile Ser Ile 120 Cys Leu Ser Leu Tyr Lys Thr Arg Lys Gln Ser Gln Thr Leu Arg Asp 135 Met Val Lys Leu Ser Met Arg Val Cys Val Cys Arg Pro Gly Gly Glu 150 155 Glu Glu Trp Val Asp Ser Ser Glu Leu Val Pro Gly Asp Cys Leu Val 165 170 Leu Ser Gln Glu Gly Gly Leu Met Pro Cys Asp Ala Ala Leu Val Ala 185 Gly Glu Cys Met Val Asn Asp Ser Ser Leu Thr Gly Glu Ser Ile Pro

Val Leu Lys Thr Ala Leu Pro Glu Gly Leu Gly Pro Tyr Cys Ala Glu 215 Thr His Arg Arg His Thr Leu Phe Cys Gly Thr Leu Ile Leu His Ala 230 235 Arg Ala Tyr Val Gly Pro His Val Leu Ala Val Val Thr Arg Thr Gly 245 250 Met Ser Arg Glu Ala Gly Leu Glu Arg Asp Pro Gly Ser Ala Pro Leu 265 Lys Arg Trp Ser

275 276

<210> 1004 <211> 222 <212>Amino acid <213> Homo sapiens

<400> 1004 Phe Val Gly Gly Leu His Leu His Leu Cys Leu Leu Cys Phe Met Leu Pro Glu Asp Ala Ala Met Ala Val Leu Thr Ala Ser Asn His 20 25 Val Ser Asn Val Thr Val Asn Tyr Asn Ile Thr Val Glu Arg Met Asn 35 4.0 Arg Met Gln Gly Leu Arg Val Ser Thr Val Pro Ala Val Leu Ser Pro 55 60 Asn Ala Thr Leu Ala Leu Thr Ala Gly Val Leu Val Asp Ser Ala Val 70 75 Glu Val Ala Phe Leu Trp Thr Phe Gly Asp Gly Glu Gln Ala Leu His 90 85 Gln Phe Gln Pro Pro Tyr Asn Glu Ser Phe Pro Val Pro Asp Pro Ser 100 105 Val Ala Gln Val Leu Val Glu His Asn Val Thr His Thr Tyr Ala Ala 120 Pro Gly Glu Tyr Val Leu Thr Val Leu Ala Ser Asn Ala Phe Glu Asn 135 140 Arg Thr Gln Gln Val Leu Ile Arg Ser Gly Arg Val Pro Ile Val Ser 150 155 Leu Glu Cys Val Ser Cys Lys Ala Gln Ala Val Tyr Glu Val Ser Arg 165 170 Ser Ser Tyr Val Tyr Leu Glu Gly Arg Cys Leu Asn Cys Ser Ser Gly 185 Ser Lys Arg Gly Arg Trp Ala Ala Arg Thr Phe Ser Asn Lys Thr Leu 200 Val Leu Asp Glu Thr Thr Thr Ser Thr Gly Ser Ala Ser Met 215

<210> 1005 <211> 363

<212>Amino acid

<213> Homo sapiens

<400> 1005 Pro Glu Phe Leu Gly Arg Leu Phe Arg Gly Lys Ala Ala Thr Leu His 5 10

Val His Ser Asp Gln Lys Pro Leu His Asp Gly Ala Leu Gly Ser Gln 20 25 Gln Asn Leu Val Arg Met Lys Glu Ala Leu Arg Ala Ser Thr Met Asp 40 Val Thr Val Val Leu Pro Ser Gly Leu Glu Lys Arg Ser Val Leu Asn 55 Gly Ser His Ala Met Met Asp Leu Leu Val Glu Leu Cys Leu Gln Asn 70 75 His Leu Asn Pro Ser His His Ala Leu Glu Ile Arg Ser Ser Glu Thr 85 90 Gln Gln Pro Leu Ser Phe Lys Pro Asn Thr Leu Ile Gly Thr Leu Asn 100 105 Val His Thr Val Phe Leu Lys Glu Lys Val Pro Glu Glu Lys Val Lys 120 Pro Gly Pro Pro Lys Val Pro Glu Lys Ser Val Arg Leu Val Val Asn 140 135 Tyr Leu Arg Thr Gln Lys Ala Val Val Arg Val Ser Pro Glu Val Pro 150 155 Leu Gln Asn Ile Leu Pro Val Ile Cys Ala Lys Cys Glu Val Ser Pro 165 170 Glu His Val Val Leu Leu Arg Asp Asn Ile Ala Gly Glu Glu Leu Glu 180 185 190 Leu Ser Lys Ser Leu Asn Glu Leu Gly Ile Lys Glu Leu Tyr Ala Trp 195 200 Asp Asn Arg Arg Glu Thr Phe Arg Lys Ser Ser Leu Gly Asn Asp Glu 215 220 Thr Asp Lys Glu Lys Lys Lys Phe Leu Gly Phe Phe Lys Val Asn Lys 230 235 Arg Ser Asn Ser Lys Gly Cys Leu Thr Thr Pro Asn Ser Pro Ser Met 245 250 His Ser Arg Ser Leu Thr Leu Gly Pro Ser Leu Ser Leu Gly Ser Ile 260 265 270 Ser Gly Val Ser Val Lys Ser Glu Met Lys Lys Arg Arg Ala Pro Pro 280 Pro Pro Gly Ser Gly Pro Pro Val Gln Asp Lys Ala Ser Glu Lys Val 295 300 Ser Leu Gly Ser Gln Ile Asp Leu Gln Lys Lys Lys Arg Arg Ala Pro 310 315 Ala Pro Pro Pro Pro Gln Pro Pro Pro Pro Ser Pro Leu Ile Pro Asn 330 325 Arg Thr Glu Asp Lys Glu Glu Asn Arg Lys Ser Thr Met Val Tyr Cys 340 345 Cys Ala Ser Phe Pro Thr Gln Ala Lys Arg Phe 360

<210> 1006 <211> 95

<212>Amino acid <213> Homo sapiens

<220>

<221> misc feature

<222> (1)...(95)

<223> X = any amino acid or stop code

<400> 1006

Val Gln Trp His Asn Leu His Ser Leu Gln Pro Leu Pro Ala Gly Phe 10 Lys Xaa Phe Leu Cys Phe Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys

20 25 30
Ala Pro Pro Leu Pro Ala Pro Phe Phe Phe Tyr Phe Leu Phe Leu Val
35 40 Leu Gly Phe His His Ile Gly Xaa Ala Gly Leu Glu Leu Thr Ser
50 60 60
Thr Asp Leu Pro Ala Ser Ala Ser Glu Ser Ala Gly Ile Thr Gly Met
65 70 75 75
Ser His Arg Ala Arg Pro Met Asp Phe Phe Leu Leu Lys Ile Leu
85 90 95

<210> 1007 <211> 151 <212>Amino acid <213> Homo sapiens

<400> 1007 Gly Arg Arg Phe Arg Pro Pro Ser Asp Glu Glu Arg Glu Pro Trp Glu 1 10 Pro Trp Thr Gln Leu Arg Leu Ser Gly His Leu Lys Pro Leu His Tyr 25 Asn Leu Met Leu Thr Ala Phe Met Glu Asn Phe Thr Phe Ser Gly Glu 35 40 Val Asn Val Glu Ile Ala Cys Arg Asn Ala Thr Arg Tyr Val Val Leu 55 His Ala Ser Arg Val Ala Val Glu Lys Val Gln Leu Ala Glu Asp Arg 70 Ala Phe Gly Ala Val Pro Val Ala Gly Phe Phe Leu Tyr Pro Gln Thr 90 Gln Val Leu Val Val Val Leu Asn Arg Thr Leu Asp Ala Gln Arg Asn 105 Tyr Asn Leu Lys Ile Ile Tyr Asn Ala Leu Ile Glu Asn Glu Leu Leu 120 Gly Phe Phe Arg Ser Ser Tyr Val Leu His Gly Glu Arg Arg Phe Leu 135 Gly Val Thr Gln Phe Ser Pro 150 151

<210> 1008 <211> 64 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(64)

<223> X = any amino acid or stop code

 $^{\circ}$ 4400> 1008 Lys Glu Leu Asp Pro Phe Tyr Asn Ser Xaa Arg Lys Ile Lys Tyr Leu 1 15 Arg Ile Tyr Leu Thr Lys Glu Val Lys Asp Leu Tyr Lys Glu Asn Tyr 20 25 30 Lys Thr Leu Leu Lys Glu Ile Thr Asp Asp Thr Asn Lys Lys His Ile

40

Pro Ser Ser Trp Thr Gly Arg Ile Asn Thr Val Lys Met Thr Ile Leu 50 55 60 64

<210> 1009 <211> 60 <212>Amino acid <213> Homo sapiens

<210> 1010 <211> 44 <212>Amino acid <213> Homo sapiens

<210> 1011 <211> 219 <212>Amino acid <213> Homo sapiens

Val Gly Tyr Leu Arg Glu Ser Ile Ala Arg Asn His Leu Thr Asp Arg 85 90 Leu Asn Leu Ile Ile Thr Ser Asp His Gly Met Thr Thr Val Asp Lys 100 105 Arg Ala Gly Asp Leu Val Glu Phe His Lys Phe Pro Asn Phe Thr Phe 120 Arg Asp Ile Glu Phe Glu Leu Leu Asp Tyr Gly Pro Asn Gly Met Leu 135 140 Leu Pro Lys Glu Gly Arg Leu Glu Lys Val Tyr Asp Ala Leu Lys Asp 150 155 Ala His Pro Lys Leu His Val Tyr Lys Lys Glu Ala Phe Pro Glu Ala 165 170 175 Phe His Tyr Ala Asn Asn Pro Arg Val Thr Pro Leu Leu Met Tyr Ser 185 Asp Leu Gly Tyr Val Ile His Gly Val Ser Arg Leu Leu Glu Ala Pro 195 200 Pro Pro Gly Ala Pro Ser Pro Gly Ser Gly Ser 215

<210> 1012 <211> 89 <212>Amino acid <213> Homo sapiens

<400> 1012 Arg Ile Pro Leu Leu Arg Leu Arg Ser Ser Thr Tyr Arg Ser Lys Gly 10 Phe Asp Val Thr Val Lys His Ser His Gly Ser Trp Thr Gly Phe Gly 20 25 Gly Glu Asp Leu Ala Thr Ile Pro Lys Gly Leu Asn Thr Tyr Phe Leu 35 40 Val Asn Ile Ala Thr Ile Phe Glu Ser Lys Asn Phe Phe Leu Pro Gly - 60 55 Ile Lys Trp Asn Gly Ile Leu Gly Leu Ser Tyr Ala Thr Leu Ala Lys 70 75 Pro Ser Ser Ser Leu Glu Thr Phe Phe 85

<210> 1013 <211> 82 <212>Amino acid <213> Homo sapiens

```
Trp Asp
```

<210> 1014 <211> 107 <212>Amino as

<212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(107)

<223> X = any amino acid or stop code

<400> 1014

Tyr Cys Phe Cys Phe Asp Leu Leu His Xaa Cys Ile His Arg Asp Val 5 10 Lys Pro Glu Asn Ile Leu Ile Thr Lys His Ser Val Ile Lys Leu Cys 25 Asp Phe Gly Phe Ala Arg Leu Leu Thr Gly Pro Ser Asp Tyr Tyr Thr 35 40 Asp Tyr Val Ala Thr Arg Trp Tyr Arg Ser Pro Glu Leu Pro Val Gly 55 Asp Thr Gln Tyr Gly Pro Pro Val Asp Val Trp Ala Ile Gly Cys Val 65 70 Ser Ala Glu Leu Leu Ser Gly Lys Cys Leu Trp Trp Pro Gly Lys Ser Asp Met Leu Asp Gln Leu Tyr Leu Ile Arg Lys 105

<210> 1015 <211> 70

<211> 70 <212>Amino acid <213> Homo sapiens

4400> 1015
Arg Gly Trp Ala Leu Asp Trp Ile Gly Ala Asp Leu Ser Leu His Leu
1 5 10
Gin Glu Glu Val Glu Thr Glu Val Ala Trp Glu Glu Cys Gly His Val
20 25 25
Leu Leu Ser Leu Cys Tyr Ser Ser Gln Gln Gly Gly Leu Leu Val Gly
40 45
Val Leu Arg Cys Ala His Leu Ala Pro Met Asp Ala Asn Gly Tyr Ser
50 55 60
App Pro Phe Val Arg Leu
65 70

<210> 1016 <211> 142 <212>Amino acid

<213> Homo sapiens

<400> 1016

Gly Gly Ile Leu Ala Met Glu Tyr Ala Pro Gly Gly Thr Leu Ala Glu 1 5 10 Phe Ile Gln Lys Arg Cys Asn Ser Leu Leu Glu Glu Glu Thr Ile Leu 20 25 His Phe Phe Val Gln Ile Leu Leu Ala Leu His His Val His Thr His 40 Leu Ile Leu His Arg Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Lys 55 His Arg Met Val Val Lys Ile Gly Asp Phe Gly Ile Ser Lys Ile Leu 65 70 75 Ser Ser Lys Ser Lys Ala Tyr Thr Val Val Gly Thr Pro Cys Tyr Ile 85 90 Ser Pro Glu Leu Cys Glu Gly Lys Pro Tyr Asn Gln Lys Ser Asp Ile 100 105 Trp Ala Leu Gly Cys Val Leu Tyr Glu Leu Ala Ser Leu Lys Arg Ala 120 Phe Glu Ala Ala Asn Leu Pro Ala Leu Val Leu Lys Ile Met 135

<210> 1017 <211> 87 <212>Amino acid <213> Homo sapiens

<400> 1017

Val Gln Cys Gly Gly 11e His Gln Val Ser Gly Ala Val Val Val Ser 1 1 5 10 15 15 16 19

<210> 1018 <211> 160 <212>Amino acid <213> Homo sapiens

c400> 1018 Pro Arg Met Thr Gly Ser Thr His Ala Ser Ala Pro Ser Tyr Gly Gly 1 15 Ser Cys Arg Asn Asn Leu Phe Tyr Arg Glu Glu Thr Tyr Thr Pro Lys 20 25 Ala Glu Thr Asp Glu Met Asn Glu Val Glu Thr Ala Pro Ile Pro Glu 35 40 Glu Asn His Val Trp Leu Gln Pro Arg Val Met Arg Pro Thr Lys Pro

Lys Lys Thr Ser Ala Val Asn Tyr Met Thr Gln Val Val Arg Cys Asp 65 70 75 Thr Lys Met Lys Asp Arg Cys Ile Gly Ser Thr Cys Asn Arg Tyr Gln 85 90 Cys Pro Ala Gly Cys Leu Asn His Lys Ala Lys Ile Phe Gly Ser Leu 100 105 Phe Tyr Glu Ser Phe Ala Ser Ile Cys Arg Ala Ala Ile His Tyr Gly 120 Ile Leu Asp Asp Lys Gly Gly Leu Val Asp Ile Thr Arg Asn Gly Lys 135 140 Val Pro Phe Phe Val Lys Ser Glu Arg His Gly Val Gln Ser Leu Arg 150 155

<210> 1019 <211> 174 <212>Amino acid <213> Homo sapiens

<400> 1019 Val Pro Gln Asn Ile Ile Cys Ala Phe Phe Cys Val Pro Cys Arg Phe 10 Ala Ser Thr Ile Pro Phe Trp Gly Leu Thr Leu His Leu Gln His Leu 25 Gly Asn Asn Val Phe Leu Leu Gln Thr Leu Phe Gly Ala Val Thr Leu 40 Leu Ala Asn Cys Val Ala Pro Trp Ala Leu Asn His Met Ser Arg Arg 55 Leu Ser Gln Met Leu Leu Met Phe Leu Leu Ala Thr Cys Leu Leu Ala 70 75 Ile Ile Phe Val Pro Gln Glu Met Gln Thr Leu Arg Val Val Leu Ala 90 Thr Leu Gly Val Gly Ala Ala Ser Leu Gly Ile Thr Cys Ser Thr Ala 100 105 Gln Glu Asn Glu Leu Ile Pro Ser Ile Ile Arg Gly Arg Ala Thr Gly 120 Ile Thr Gly Asn Phe Ala Asn Ile Gly Gly Ala Leu Ala Ser Leu Val 135 Met Ile Leu Ser Ile Tyr Ser Arg Pro Leu Pro Trp Ile Ile Tyr Gly 150 155 Val Phe Ala Ile Leu Ser Gly Leu Val Val Leu Leu Leu Pro 165 170

<210> 1020 <211> 225 <212>Amino acid <213> Homo sapiens

<400> 1020

Val Leu Val Ser Arg Asp His Met Lys Ser Ala Gln Gln Phe Phe Gln 1 5 10 15 15 Leu Val Gly Gly Ser Ala Ser Glu Cys Asp Thr Ile Pro Gly Arg Gln

```
25
Cys Met Ala Ser Cys Phe Phe Leu Leu Lys Gln Phe Asp Asp Val Leu
                  40
Ile Tyr Leu Asn Ser Phe Lys Ser His Phe Tyr Asn Asp Asp Ile Phe
                     55
Asn Phe Asn Tyr Ala Gln Ala Lys Ala Ala Thr Gly Asn Thr Ser Glu
                  70
                                    75
Gly Glu Glu Ala Phe Leu Leu Ile Gln Ser Glu Lys Met Lys Asn Asp
              85
                                 90
Tyr Ile Tyr Leu Ser Trp Leu Ala Arg Gly Tyr Ile Met Asn Lys Lys
         100
                            105
Pro Arg Leu Ala Trp Glu Leu Tyr Leu Lys Met Glu Thr Ser Gly Glu
                        120
                                           125
Ser Phe Ser Leu Leu Gln Leu Ile Ala Asn Asp Cys Tyr Lys Met Gly
                     135
                                       140
Gln Phe Tyr Tyr Ser Ala Lys Ala Phe Asp Val Leu Glu Arg Leu Asp
                150
                                   155
Pro Asn Pro Glu Tyr Trp Glu Gly Lys Arg Gly Ala Cys Val Gly Ile
              165
                               170 175
Phe Gln Met Ile Ile Ala Gly Arg Glu Pro Lys Glu Thr Leu Arg Glu
                            185
Val Leu His Leu Leu Arg Ser Thr Gly Asn Thr Gln Val Glu Tyr Met
                       200
Ile Arg Ile Met Lys Lys Trp Ala Lys Glu Asn Arg Val Ser Ile Leu
                     215
                                       220
Lvs
225
```

<210> 1021 <211> 118 <212>Amino acid <213> Homo sapiens

<400> 1021 Leu Lys Val Ser Asp Glu Leu Val Gln Gln Tyr Gln Ile Lys Asn Gln Cys Leu Ser Ala Ile Ala Ser Asp Ala Glu Glu Glu Pro Lys Ile Asp Pro Tyr Ala Phe Val Glu Gly Asp Glu Glu Phe Leu Phe Pro Asp Lys 40 Lys Asp Arg Gln Asn Ser Glu Arg Glu Ala Gly Lys Lys His Lys Val 55 Arg Glu Ile Thr Val His Gln Arg Val Thr Val Asp Phe Val Ala Leu 70 His Ile Val Thr Leu Leu Leu Pro Gln Leu Ser His Phe Phe Cys Leu 85 90 Arg Ile Glu Arg Val Ile Ile Tyr Leu Glu Lys Pro Ile Phe Ala Arg 100 105 Leu Arg Trp Leu Met Pro

<210> 1022 <211> 178 <212>Amino acid <213> Homo sapiens

<400> 1022 Gly Val Pro Arg Asn Leu Pro Ser Ser Leu Glu Tyr Leu Leu Leu Ser 1.0 Tyr Asn Arg Ile Val Lys Leu Ala Pro Glu Asp Leu Ala Asn Leu Thr 20 25 Ala Leu Arg Val Leu Asp Val Gly Gly Asn Cys Arg Arg Cys Asp His Ala Pro Asn Pro Cys Met Glu Cys Pro Arg His Phe Pro Gln Leu His Pro Asp Thr Phe Ser His Leu Ser Arg Leu Glu Gly Leu Val Leu Lys 70 Asp Ser Ser Leu Ser Trp Leu Asn Ala Ser Trp Phe Arg Gly Leu Gly 8.5 90 Asn Leu Arg Val Leu Asp Leu Ser Glu Asn Phe Leu Tyr Lys Cys Ile 100 105 110 Thr Lys Thr Lys Ala Phe Gln Gly Leu Thr Gln Leu Arg Lys Leu Asn 125 120 Leu Ser Phe Asn Tyr Gln Lys Arg Val Ser Phe Ala His Leu Val Ser 135 140 Gly Pro Pro Phe Leu Arg Gly Ser Leu Gly Arg Pro Leu Lys Gly Ala 150 155 Gly Thr Trp His Gly Asn Leu Ser Phe Pro Leu His Phe Glu Trp Gly 165 170 Lys Thr 178

<210> 1023 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1023 Ile Leu Phe Ala Ala Leu Ile Trp Ser Ser Phe Asp Glu Asn Ile Glu 10 Ala Ser Ala Gly Gly Gly Gly Ser Ser Ile Asp Ala Val Met Val 25 Asp Ser Gly Ala Val Val Glu Gln Tyr Lys Arg Met Gln Ser Gln Glu 40 Ser Ser Ala Lys Arg Ser Asp Glu Gln Arg Lys Met Lys Glu Gln Gln 60 Ala Ala Glu Glu Leu Arg Glu Lys Gln Ala Ala Glu Gln Glu Arg Leu 70 75 Lys Gln Leu Glu Lys Glu Arg Leu Ala Ala Gln Glu Gln Lys Lys Gln 90 Ala Glu Glu Ala Ala Lys Gln Ala Glu Leu Lys Gln Lys Gln Ala Glu 105 100 Glu Ala Ala Ala Lys Ala Ala Ala Asp Ala Lys Ala Lys Ala Glu Ala 120 125 Asp Ala Lys Ala Ala Glu Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala 1.30 1.35 Lys Lys

145 146

<210> 1024 <211> 39 <212>Amino acid

<213> Homo sapiens

 $^{\rm c400>~1024}$ Åla Met Glu Ile Val His Glu Pro Arg Asp Leu Glu Arg Tyr Met Arg 1 5 10 15 Glu Ala Val Lys Val Ser Asn Asp Ser Pro Val Leu Leu Asp Arg Phe 20 25 30 Leu Asn Asp Ala Ile Glu Cys

<210> 1025 <211> 53 <212>Amino acid <213> Homo sapiens

35

<210> 1026 <211> 365 <212>Amino acid <213> Homo sapiens

<400> 1026 Pro Arg Val Arg Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln 10 Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val 25 Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Trp Thr Leu Ser 70 75 Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val 85 90 Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile 1.00 1.05 Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn 115 120 Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg 135 140 Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly

```
150
                                  155
Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
                  170
             165
Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
                    185
Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala Gly Met
                       200
Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Gly Pro Pro Val Ala
                230
                                 235
Ser Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile
             245
                            250
Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys
                          265
Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro
      275 280 285
Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp
                   295
Leu Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys
                310
                                 315
Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly Pro Gly
            325 330
Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile Pro
         340
                          345
His His Thr His Thr His Thr Pro His Pro Pro Ala Asn
                      360
```

<210> 1027 <211> 30 <212>Amino acid <213> Homo sapiens

<210> 1028 <211> 104 <212>Amino acid <213> Homo sapiens

 65 70 75 80 His Lys Tyr Arg Arg Arg Cys Leu Ser Glu Arg Lys Arg Leu Gly Ile 95 Gly Gln Ser Gln Glu Met Asn Thr 100 104

<210> 1029 <211> 119 <212>Amino acid <213> Homo sapiens

<400> 1029 Pro Gly Ser Gly Gly Ser Ala Gly Gly Arg Asp Gly Ser Ala Tyr Gln 10 1.5 Gly Ala Leu Leu Pro Arg Glu Gln Phe Ala Ala Pro Leu Gly Arg Pro Val Gly Thr Ser Tyr Ser Ala Thr Tyr Pro Ala Tyr Val Ser Pro Asp 40 Val Ala Gln Ser Trp Thr Ala Gly Pro Phe Asp Gly Ser Val Leu His 55 Gly Leu Pro Gly Arg Arg Pro Thr Phe Val Ser Asp Phe Leu Glu Glu 70 75 Phe Pro Gly Glu Gly Arg Glu Cys Val Asn Cys Gly Ala Leu Ser Thr 85 ' 9.0 Pro Leu Trp Arg Arg Asp Gly Thr Gly His Tyr Leu Cys Asn Ala Cys 100 105 Gly Leu Tyr His Lys Met Asn 115 119

<210 > 1030
<211 > 171
<212 > Amaino acid
<213 > Homo sapiens
<220 >
<221 > misc_feature
<222 > (1) ... (171)
<223 > X = any amino acid or stop code

Pro Asp His Arg His Gly Ala Leu Trp Trp Trp Tyr Ser Cys Gly Val 1.0 Leu Pro Val Thr Val Ser Arg Asn Glu Gly Asp Glu Arg Asn Gln Val 20 25 Leu Thr Leu Tyr Leu Trp Ile Arg Gln Glu Trp Thr Asp Ala Tyr Leu 35 . 45 40 Arg Trp Asp Pro Asn Ala Tyr Gly Gly Leu Asp Ala Ile Arg Ile Pro 55 Ser Ser Leu Val Trp Arg Pro Asp Ile Val Leu Tyr Asn Lys Tyr Cys 70 75 Leu Ser Ala Ala Pro Pro Leu Ser Tyr Pro Ser Leu Asp Leu Pro Leu 85 90 Ala Val Gly Val Xaa Xaa Ser Pro Leu Pro Thr Thr Xaa Pro Gly Cys 100 105

<210> 1031 <211> 198 <212>Amino acid <213> Homo sapiens

<400> 1031 Tyr Ala Leu Thr Gly Ala Leu Val Ile Val Thr Gly Met Val Met Gly 10 Asn Ile Ala Asp Tyr Phe Asn Leu Pro Val Ser Ser Met Ser Asn Thr 25 Phe Thr Phe Leu Asn Ala Gly Ile Leu Ile Ser Ile Phe Leu Asn Ala 40 Trp Leu Met Glu Ile Val Pro Leu Lys Thr Gln Leu Arg Phe Gly Phe 55 Leu Leu Met Val Leu Ala Val Ala Gly Leu Met Phe Ser His Ser Leu 70 75 Ala Leu Phe Ser Ala Ala Met Phe Ile Leu Gly Val Val Ser Gly Ile 90 Thr Met Ser Ile Gly Thr Phe Leu Val Thr Gln Met Tyr Glu Gly Arg 100 105 Gln Arg Gly Ser Arg Leu Leu Phe Thr Asp Ser Phe Phe Ser Met Ala 120 Gly Met Ile Phe Pro Met Ile Ala Ala Phe Leu Leu Ala Arg Ser Ile 135 140 Glu Trp Tyr Trp Val Tyr Ala Cys Ile Gly Leu Val Tyr Val Ala Ile 150 155 Phe Ile Leu Thr Phe Gly Cys Glu Phe Pro Ala Leu Cys Ser His Ala 165 170 Thr Lys Leu Gly Thr Ala Ser Ser Tyr Pro Ser Leu Asp Val Val Gln 180 185 Leu Arg Thr Leu Asn Ala

Leu Arg Thr Leu Asn Ala 195 198

> <210> 1032 <211> 138 <212>Amino acid

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(138)

<223> X = any amino acid or stop code

 ${<}400{>}\ 1032$ Met Ala Lys Val Gly Leu Lys Thr Glu His Tyr Asp Arg Tyr Pro His

10 Met Phe Ser Gly Gly Gln Arg Gln Arg Ile Ala Ile Ala Arg Gly Leu 25 Met Leu Asp Pro Asp Val Val Ile Ala Asp Glu Pro Val Ser Ala Leu 40 Asp Val Ser Val Arg Ala Gln Val Leu Asn Leu Met Met Asp Leu Gln Gln Glu Leu Gly Leu Ser Tyr Val Phe Ile Ser His Asp Leu Ser Val 70 75 Val Glu His Ile Ala Asp Glu Val Met Val Met Tyr Leu Gly Arg Cys 85 90 Val Glu Lys Gly Thr Lys Asp Gln Ile Phe Asn Asn Pro Arg His Pro 100 105 Tyr Thr Gln Ala Leu Leu Ser Ala Thr Pro Arg Leu Asn Pro Asp Asp 120 Arg Arg Glu Arg Ile Lys Leu Ser Xaa * 135 137

<210> 1033 <211> 141 <212>Amino acid <213> Homo sapiens

<400> 1033

Ser Ala Thr Leu Glu Arg Val Leu Asn His Pro Asp Glu Thr Gln Ala 10 Arg Arg Leu Met Thr Leu Glu Asp Ile Val Ser Gly Tyr Ser Asn Val 25 Leu Ile Ser Leu Ala Asp Ser Gln Gly Lys Thr Val Tyr His Ser Pro 40 Gly Ala Pro Asp Ile Arg Glu Phe Thr Arg Asp Ala Ile Pro Asp Lys 55 Asp Ala Gln Gly Gly Glu Val Tyr Leu Leu Ser Gly Pro Thr Met Met 75 Met Pro Gly His Gly His Gly His Met Glu His Ser Asn Trp Arg Met 85 90 Ile Asn Leu Pro Val Gly Pro Leu Val Asp Gly Lys Pro Ile Tyr Thr 100 105 Leu Tyr Ile Ala Leu Ser Ile Asp Phe His Leu His Tyr Ile Asn Asp

115 120 125 Leu Met Asn Lys Leu Ile Met Thr Ala Ser Val Ile Ile

<210> 1034 <211> 112 <212>Amino acid <213> Homo sapiens

130 . 135

<210> 1035 <211> 92

<212>Amino acid

<213> Homo sapiens

<400> 1035 Gly Gln Gln Arg Val Ala Leu Ala Arg Ala Leu Ile Leu Lys Pro 5 10 Lys Val Leu Leu Phe Asp Glu Pro Leu Ser Asn Leu Asp Ala Asn Leu 25 Arg Arg Ser Met Arg Asp Lys Ile Arg Glu Leu Gln Lys Gln Phe Asp 40 Ile Thr Ser Leu Tyr Val Thr His Asp Gln Ser Glu Ala Phe Ala Val 55 Ser Asp Thr Val Leu Val Met Asn Lys Gly His Ile Met Gln Ile Gly 75 70 Ser Pro Gln Asp Leu Arg Val Arg Arg Leu Asn Trp 85 90 92

<210> 1036 <211> 51

<212>Amino acid

2125 MILLIO ACIU

<213> Homo sapiens

<400> 1036

Ser Ala Leu

50 51

<210> 1037 <211> 72

<212>Amino acid

<213> Homo sapiens

<210> 1038 <211> 188 <212>Amino acid

<213> Homo sapiens

<400> 1038 Val Phe Cys Leu Ile Ala Asp Leu Asp Pro Ile Asp Glu Leu Val Asp 1.0 Phe Pro Ile Val Tyr Ala Ser Ala Leu Asn Gly Ile Ala Gly Leu Asp 25 His Glu Asp Met Ala Glu Asp Met Thr Pro Leu Tyr Gln Ala Ile Val Asp His Val Pro Ala Pro Asp Val Asp Leu Asp Gly Pro Phe Gln Met Gln Ile Ser Gln Leu Asp Tyr Asn Ser Tyr Val Gly Val Ile Gly Ile Gly Arg Ile Lys Arg Gly Lys Val Lys Pro Asn Gln Gln Val Thr Ile 90 Ile Asp Ser Glu Gly Lys Thr Arg Asn Ala Lys Val Gly Lys Val Leu 100 105 Gly His Leu Gly Leu Glu Arg Ile Glu Thr Asp Leu Ala Glu Ala Gly 120 Asp Ile Val Ala Ile Thr Gly Leu Gly Glu Leu Asn Ile Ser Asp Thr 135 Val Cys Asp Thr Gln Asn Val Glu Ala Leu Pro Ala Leu Ser Val Asp 150 155 Glu Pro Thr Val Ser Met Phe Phe Cys Val Asn Thr Ser Pro Phe Cys 170 165 Gly Lys Glu Gly Lys Phe Val Thr Ser Arg Gln Ile 180 185

<210> 1039 <211> 122 <212>Amino acid <213> Homo sapiens

 $<\!400\!>1039$ Gin Gly Thr Arg Ala Glu Ser Gln Gly Ser Ser Lys Asp Lys Thr Arg 1 15 10 15 Leu Ala Phe Ala Gly Leu Lys Phe Gly Asp Tyr Gly Ser Ile Asp Tyr

25 Gly Arg Asn Tyr Gly Val Ala Tyr Asp Ile Gly Ala Trp Thr Asp Val 40 Leu Pro Glu Phe Gly Gly Asp Thr Trp Thr Gln Thr Asp Val Phe Met 55 Thr Gln Arg Ala Thr Gly Val Ala Thr Tyr Arg Asn Asn Asp Phe Phe 70 75 Gly Leu Val Asp Gly Leu Asn Phe Ala Ala Gln Tyr Gln Gly Lys Asn 85 90 Asp Arg Ser Asp Phe Asp Asn Tyr Thr Glu Gly Asn Gly His Gly Phe 100 105 Gly Phe Ser Ala Thr Tyr Glu Tyr Glu Gly 120 122

<210> 1040 <211> 65 <212>Amino acid <213> Homo sapiens

<210> 1041 <211> 46 <212>Amino acid <213> Homo sapiens

4:400> 1041
Ala Asn Ala Gln Gln Gln Gly Leu Pro Ser Gly Ile Thr Leu Lys Leu Asn
1 . 5
Asn Leu Val Asp Lys Gly Leu Val Asp Arg Leu Tyr Ala Ala Ser Ser
20
25
30
Ser Gly Val Pro Val Asn Leu Leu Val Arg Gly Thr Cys Ser
35
40
45
46

<210> 1042 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1042 Ala Arg Met Thr Leu Ile Pro Gly Thr His Leu Leu Glu Asn Ile His 5 10 Asn Ile Trp Val Asn Gly Val Gly Thr Asn Ser Ala Pro Phe Trp Arg 25 Met Leu Leu Asn Ser Phe Val Met Ala Phe Ser Ile Thr Leu Gly Lys 35 40 Ile Thr Val Ser Met Leu Ser Ala Phe Ala Ile Val Trp Phe Arg Phe 55 Pro Leu Arg Asn Leu Phe Phe Trp Met Ile Phe Ile Thr Leu Met Leu 70 75 Pro Val Glu Val Arg Ile Phe Pro Thr Val Glu Val Ile Ala Asn Leu 85 90 Gln Met Leu Asp Ser Tyr Ala Gly Leu Thr Leu Pro Leu Met Ala Ser 105 Ala Thr Ala Thr Phe Leu Phe Arg Lys Leu Asn Met Ser Gly Pro Asp 120 Lys Val Val Pro Ala Ala Arg Ile Ser Gly Tyr Gly Pro Arg Val Arg 135 Lvs Gln 145 146

<210> 1043 <211> 133 <212>Amino acid <213> Homo sapiens

<400> 1043 Cys Ala Lys Cys Leu Arg Asp Ala Asp Glu Cys Pro Ser Gly Ala Phe 10 Glu Arg Ile Gly Arg Asp Ile Ser Leu Asp Ala Leu Glu Arg Glu Val 25 Met Lys Asp Asp Ile Phe Phe Arg Thr Ser Gly Gly Val Thr Leu 40 Ser Gly Gly Glu Val Leu Met Gln Ala Glu Phe Ala Thr Arg Phe Leu 55 Gln Arg Leu Arg Leu Trp Gly Val Ser Cys Ala Ile Glu Thr Ala Gly 70 Asp Ala Pro Ala Ser Lys Leu Leu Pro Leu Ala Lys Leu Cys Asp Glu Val Leu Phe Asp Leu Lys Ile Met Asp Ala Thr Gln Ala Arg Asp Val 105 Val Lys Met Asn Leu Pro Arg Val Leu Glu Asn Leu Arg Leu Leu Val 115 120 Ser Glu Gly Val Asn 130 133

<210> 1044

<210> 1044 <211> 115 <212>Amino acid <213> Homo sapiens

<400> 1044
Tyr Leu Leu Leu Phe Val Cys Phe Leu Val Met Ser Leu Leu Val Gly

<210> 1045 <211> 69 <212>Amino acid <213> Homo sapiens

<210> 1046 <211> 69 <212>Amino acid <213> Homo sapiens

<210> 1047 <211> 43 <212>Amino acid

<213> Homo sapiens

<210> 1048

<211> 77
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc feature

<222> (1) ... (77) <223> X = any amino acid or stop code

<210> 1049 <211> 79 <212>Amino acid <213> Homo sapiens

4400- 1049
Glu Asn Ile Ala Glu Glu Tyr Ala Thr Lys Arg Tyr Arg Ser Asn Val
1
10
10
10
10
11
12
10
11
12
12
12
13
14
15
16
17
18
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19

<210> 1050 <211> 99 <212>Amino acid <213> Homo sapiens

<400> 1050

Lou Gln Thr Glu Ile Gly Ser Met Val Tyr Ala Val Lys Pro Gly Asp 10 Gly Ser Ala Arg Glu Gln Ala Ala Ser Cys Gln Arg Val Ile Gly Gly 20 25 Gln Arg Val Ile Gly Gly 25 Leu Ala Asn Ile Ala Glu Glu Tyr Ala Thr Lys Arg Tyr Arg Ser Asn 35 40 45 Val Ile Asn Tp Gly Met Leu Pro Leu Gln Met Ala Glu Val Pro Thr 50 Phe Glu Val Gly Asp Tyr Ile Tyr Ile Leu Gly Phe Lys Ala Ala La Ser Tyr Ser Pro Gly Thr Ala Phe Thr Val Tyr Ala Ile Ser Gly Tyr Gly 85 90 Pro Arg Ile 99

<210> 1051 -<211> 114 <212>Amino acid <213> Homo sapiens

<400> 1051

114

<210> 1052 <211> 210 <212>Amino acid <213> Homo sapiens

<400> 1052

Glu Ser Asn Ser Arg Cys Arg Lys Met Pro Gly Glu Arg Cys Arg Gly 10 Gly Pro Ala Arg Leu Ser Leu Leu Leu Asp Leu Pro Thr Arg Pro Leu Pro His Pro Arg Gln Val Ile Asp Phe Gly Ser Ala Ser Ile Phe Ser Glu Val Arg Tyr Val Lys Glu Pro Tyr Ile Gln Ser Arg Phe Tyr Arg Ala Pro Glu Ile Leu Leu Gly Leu Pro Phe Cys Glu Lys Val Asp Val 75 Trp Ser Leu Gly Cys Val Met Asp Glu Leu His Leu Gly Trp Pro Leu 85 90 Tyr Pro Gly Asn Asn Glu Tyr Asp Gln Val Arg Tyr Ile Cys Glu Thr 100 105 110 Gln Gly Leu Pro Lys Pro His Leu Leu His Ala Ala Cys Lys Ala His 120 125 His Phe Phe Lys Arg Asn Pro His Pro Asp Ala Ala Asn Pro Trp Gln 135 140 Leu Lys Ser Ser Ala Asp Tyr Leu Ala Glu Thr Lys Val Arg Pro Leu 150 155 Glu Arg Arg Lys Tyr Met Leu Lys Ser Leu Asp Gln Ile Glu Thr Val 165 170 175 Asn Gly Gly Ser Val Ala Ser Arg Leu Thr Phe Pro Asp Arg Glu Ala 180 185 190 Leu Ala Glu His Ala Asp Leu Lys Ser Met Val Glu Leu Met Lys Arg 200 Leu Leu

210

<210> 1053 <211> 100 <212>Amino acid <213> Homo sapiens

<210> 1054

<211> 194

<212>Amino acid <213> Homo sapiens

<400> 1054 Cys Gly Pro Gly Phe Ser Leu Ser Phe Phe Phe Leu Arg Trp Ser Phe 10 Ala Leu Val Ala Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu 25 Gln Pro Pro Ala Pro Gly Phe Lys Arg Phe Ser Ser Leu Ser Leu Leu 35 Ser Arg Trp Asp Tyr Arg His Ala His Ala Arg Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu 70 Pro Thr Ser Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Arg Ile 90 Thr Gly Val Thr Thr Pro Leu Gly Thr Phe Phe Phe Leu Arg Trp 105 Ser Phe Ala Leu Val Ala Gln Ala Gly Gly Gln Cys Leu Asp Leu Gly 120 125 Ser Leu Gln Leu Pro Pro Pro Gly Phe Lys Arg Leu Val Cys His Phe 135 140 Gln Thr Pro Gln Lys His Arg Cys Ser Cys Gln Ala Pro Gly Asp Cys. 150 155 Leu Gln Glu Ser Phe Val Met Thr Gly Cys Val Leu Arg Thr Val Ser 165 170 Glu Ser Val Gln Arg Ala Asn Ala Gly Ala Gly Ala Glu Thr Val Gln 185 Gly Leu

194

<210> 1055 <211> 351 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature <222> (1)...(351) <223> X = any amino acid or stop code

<400> 1055 Met Gly Asn Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val 10 Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu 25 Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys 40 Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Xaa Gln Lys Val 70 Gly Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys 105 Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu 120 125 Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala 135 140 Arg Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser

```
150
                                   155
Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp
             165
                               170
Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val
                          185
Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro
                        200
Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala
                    215
Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe
                 230
                                    235
Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val
              245
                               250
Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn
                           265
         260
Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly
                      280
Val Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Asp Trp Ile
               295
Ala Ile Tyr Gln Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Phe Lys
                310
                                  315
Gly Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Glu Ile
             325
                               330
Arg Val Ser Ile Asn Glu Lys Phe Gly Lys Glu Phe Ser Glu Phe
                           345
```

<210> 1056 <211> 136

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) . . . (136)

<223> X = any amino acid or stop code

<400> 1056

Ser Ser Ser Arg Ser Ser His Gly Asp Ser Pro Pro His Ser Gln Thr 10 Pro Cys Asp Thr Asn Arg Gly Leu Asp Thr Lys His Xaa Asp Ser Gln 2.0 25 Ser Ile Glu Glu Lys Asp Ser Ser Gln Ser Glu Xaa Asn Arg Ile Glu 40 Arg Arg Lys Glu Val Glu Arg Ile Leu Gln Thr Asn Ser Asp Tyr Met 55 Xaa His Trp Ser Asn Xaa Pro Glu Asn Ile Leu Pro Lys Lys Phe Phe 70 75 Ser Lys His Gln Lys Cys Thr Ala Thr Leu Ser Met Arg Asn Thr Ser Ile Met Lys Lys Glu Gly Leu Phe Xaa Ala Gln Phe Pro Ser Leu Leu 100 105 110 Leu Ser His Leu Pro Ala Val Gly Leu Gly Ile Tyr Thr Gly Thr His 115 120 Leu Thr Thr Ser Thr Ser Thr Phe 130 135 136

<210> 1057 <211> 79

<212-Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(79)
<223> X = any amino acid or stop code

<210> 1058 <211> 458 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(458)

<223> X = any amino acid or stop code

<400> 1058 Gly Thr Ser Gly Val Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn 10 Leu Asp Leu Lys Glu Leu Val Glu Lys Leu Glu Lys Asn Glu Arg Lys 25 Leu Lys Lys Gln Leu Lys Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala Gln Ser Glu Arg Lys Arg His Glu Leu Asn 55 Arg Gln Val Thr Val Gln Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp Glu Ala Leu Leu Ile Arg Asn Leu Val Thr 8.5 90 Asp Leu Lys Pro Gln Met Leu Ser Gly Thr Val Pro Cys Leu Pro Ala 105 Tyr Ile Leu Tyr Met Cys Ile Arg His Ala Asp Tyr Thr Asn Asp Asp 120 125 Leu Lys Val His Ser Leu Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys 135 Val Leu Lys Lys His Asn Asp Asp Phe Glu Met Thr Ser Phe Trp Leu . 155 150 Ser Asn Thr Cys Arg Leu Leu His Cys Leu Lys Gln Tyr Ser Gly Asp 165 170 Glu Gly Phe Met Thr Gln Asn Thr Ala Lys Gln Asn Glu His Cys Leu 180 185

Lys Asn Phe Asp Leu Thr Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser 200 Ile Gln Ile Tyr Gln Gln Leu Ile Lys Ile Ala Glu Gly Val Leu Gln 215 Pro Met Ile Val Ser Ala Met Leu Glu Asn Xaa Ser Ile Gln Gly Leu 230 235 Ser Gly Val Lys Pro Thr Gly Ser Gln Lys His Ser Ser Ser Met Ala 250 Asp Glu Asp Asn Ser Tyr Arg Leu Glu Ala Ile Ile Arg Gln Met Asn 265 Ala Phe His Thr Val Met Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile 280 Leu Gln Val Phe Lys Gln Leu Phe Tyr Met Ile Asn Ala Val Thr Leu 295 300 Asn Asp Leu Leu Arg Lys Asp Val Cys Ser Trp Ser Thr Gly Met 310 315 Gln Leu Arg Tyr Asn Ile Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg 325 330 Asn Leu His Gln Ser Gly Ala Val Gln Thr Met Glu Pro Leu Ile Gln 340 345 Ala Ala Gln Leu Leu Gln Leu Lys Lys Thr Gln Glu Asp Ala Glu 360 Ala Ile Cys Ser Leu Cys Thr Ser Leu Ser Thr Gln Gln Ile Val Lys 375 380 Ile Leu Asn Leu Tyr Thr Pro Leu Asn Glu Phe Glu Glu Arg Val Thr 390 395 Val Ala Phe Ile Arg Thr Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp 410 Pro Gln Gln Leu Leu Asp Ala Lys His Met Phe Pro Val Leu Phe 425 Pro Phe Asn Pro Ser Ser Leu Thr Met Asp Ser Ile His Ile Pro Ala 440 Cys Leu Asn Leu Glu Phe Leu Asn Glu Val 455

<210> 1059 <211> 82 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(82)

<223> X = any amino acid or stop code

<400> 1059

If a continuation of the cont

<400> 1060 Gly Thr Thr Asp Glu Ile Met Thr Arg Trp Ala Arg Val Ser Thr Thr 5 1 10 Tyr Asn Lys Arg Pro Leu Pro Ala Thr Ser Trp Glu Asp Met Lys Lys 20 25 Gly Ser Phe Glu Gly Thr Ser Gln Asn Leu Pro Lys Arq Lys Gln Leu 40 45 Glu Ala Asn Arg Leu Ser Leu Lys Asn Asp Ala Pro Gln Ala Lys His 55 Lys Lys Asn Lys Lys Lys Glu Tyr Leu Asn Glu Asp Val Asn Gly 70 75 Phe Met Glu Tyr Leu Arg Gln Asn Ser Gln Met Val His Asn Gly Gln 85 90 Ile Ile Ala Thr Asp Ser Glu Glu Val Arg Glu Glu Ile Ala Val Ala 100 105 Leu Lys Lys Asp Ser Arg Arg Glu Gly Arg Arg Leu Lys Arg Gln Ala 115 120 125 Ala Lys Lys Asn Ala Met Val Cys Phe His Cys Arg Lys Pro Gly His 135 140 Gly Ile Ala Asp Cys Pro Ala Ala Leu Glu Asn Gln Asp Met Gly Thr 145 150 155 Gly Ile Cys Tyr Arg Cys Gly Ser Thr Glu His Glu Ile Thr Lys Cys 165 170 175 Lys Ala Lys Val Asp Pro Ala Leu Gly Glu Phe Pro Phe Ala Lys Cys 180 185 190 Phe Val Cys Gly Glu Met Gly His Leu Ser Arg Ser Cys Pro Asp Asn 195 200 205 Pro Lys Gly Leu Tyr Ala Asp Gly Gly Gly Cys Lys Leu Cys Gly Ser 215 220 Val Glu His Leu Lys Lys Asp Cys Pro Glu Ser Gln Asn Ser Glu Arg 230 235 Met Val Thr Val Gly Arg Trp Ala Lys Gly Met Ser Ala Asp Tyr Glu 245 250

Glu Ile Leu Asp Val Pro Lys Pro Gln Lys Pro Lys Thr Lys Ile Pro

265

<210> 1061 <211> 95 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

260

Lys Val Val Asn Phe 275 277

<210> 1060 <211> 277 <212>Amino acid <213> Homo sapiens

<222> (1)...(95) <223> X = any amino acid or stop code

<400> 1061

<211> 259
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(259)

<223> X = any amino acid or stop code

<210> 1062

<400> 1062 Ser Asp Ala Trp Ala Asp Ala Trp Ala Arg Ser Leu Ser Val Ser Pro 10 Ser Ser Tyr Pro Glu Leu His Thr Glu Val Pro Leu Ser Val Leu Ile 25 Leu Gly Leu Leu Val Val Phe Ile Leu Ser Val Cys Phe Gly Ala Gly 35 40 Leu Phe Val Phe Val Leu Lys Arg Arg Lys Gly Val Pro Ser Val Pro 55 Arg Asn Thr Asn Asn Leu Asp Val Ser Ser Phe Gln Leu Gln Tyr Gly 70 75 Ser Tyr Asn Thr Glu Thr His Asp Lys Thr Asp Gly His Val Tyr Asn Tyr Ile Pro Pro Pro Val Val Gln Met Cys Gln Asn Pro Ile Tyr Met Ala Gly Arg Glu Gly Arg Pro Ser Ser Leu Leu Pro Lys Pro Gly Lys 120 Glu Phe Gln Leu Leu Gly Asn Leu Glu Glu Lys Lys Glu Glu Pro Ala 135 140 Thr Pro Ala Tyr Thr Ile Ser Ala Thr Glu Leu Leu Glu Lys Gln Ala 150 155 Thr Pro Arg Glu Pro Glu Leu Leu Tyr Gln Asn Ile Ala Glu Pro Ser 170 165 Gln Gly Thr Ser Thr Ala Gln Ala Xaa Ser Thr Ile Thr Phe Val Pro 185 Tyr Leu Lys Gly Gln Phe Ala Pro Ser Tyr Glu Ser Arg Arg Gln Asn 195 200 Gln Asp Arg Ile Asn Lys Thr Val Leu Tyr Gly Thr Pro Arg Lys Cys 215 220 Phe Val Gly Gln Ser Lys Pro Asn His Pro Leu Leu Gln Ala Lys Pro 235 Gln Ser Glu Pro Asp Tyr Leu Glu Val Leu Glu Lys Gln Thr Ala Ile 245 250 Ser Gln Leu

259

<210> 1063 <211> 498 <212>Amino acid <213> Homo sapiens

<400> 1063

Ala Leu Cys His Ile Ala Val Gly Gln Gln Met Asn Leu His Trp Leu His Lys Ile Gly Leu Val Val Ile Leu Ala Ser Thr Val Val Ala Met 20 2.5 Ser Ala Val Ala Gln Leu Trp Glu Asp Glu Trp Glu Val Leu Leu Ile 35 4.0 Ser Leu Gln Gly Thr Ala Pro Phe Leu His Val Gly Ala Val Ala Ala 55 Val Thr Met Leu Ser Trp Ile Val Ala Gly Gln Phe Ala Arg Ala Glu 70 75 Arg Thr Ser Ser Gln Val Thr Ile Leu Cys Thr Phe Phe Thr Val Val 85 90 Phe Ala Leu Tyr Leu Ala Pro Leu Thr Ile Ser Ser Pro Cys Ile Met 100 105 Glu Lys Lys Asp Leu Gly Pro Lys Pro Ala Leu Ile Gly His Arg Gly 1.15 120 1.25 Ala Pro Met Leu Ala Pro Glu His Thr Leu Met Ser Phe Arg Lys Ala 135 140 Leu Glu Gln Lys Leu Tyr Gly Leu Gln Ala Asp Ile Thr Ile Ser Leu 150 155 160 Asp Gly Val Pro Phe Leu Met His Asp Thr Thr Leu Arg Arg Thr Thr 165 170 Asn Val Glu Glu Phe Pro Glu Leu Ala Arg Arg Pro Ala Ser Met 185 Leu Asn Trp Thr Thr Leu Gln Arg Leu Asn Ala Gly Gln Trp Phe Leu 200 Lys Thr Asp Pro Phe Trp Thr Ala Ser Ser Leu Ser Pro Ser Asp His 215 220 Arg Glu Ala Gln Asn Gln Ser Ile Cys Ser Leu Ala Glu Leu Leu Glu 230 235 Leu Ala Lys Gly Asn Ala Thr Leu Leu Leu Asn Leu Arg Asp Pro Pro 250 Arg Glu His Pro Tyr Arg Ser Ser Phe Ile Asn Val Thr Leu Glu Ala 265 Val Leu His Ser Gly Phe Pro Gln His Gln Val Met Trp Leu Pro Ser 280 Arg Gln Arg Pro Leu Val Arg Lys Val Ala Pro Gly Phe Gln Gln Thr 295 300 Ser Gly Ser Lys Glu Ala Val Ala Ser Leu Arg Arg Gly His Ile Gln 310 315 Arg Leu Asn Leu Arg Tyr Thr Gln Val Ser Arg Gln Glu Leu Arg Asp 325 330 Tyr Ala Ser Trp Asn Leu Ser Val Asn Leu Tyr Thr Val Asn Ala Pro 345 Trp Leu Phe Ser Leu Leu Trp Cys Ala Gly Val Pro Ser Val Thr Ser 360 Asp Asn Ser His Thr Leu Ser Gln Val Pro Ser Pro Leu Trp Ile Met 375 380 Pro Pro Asp Glu Tyr Cys Leu Met Trp Val Thr Ala Asp Leu Val Ser 390 395 Phe Thr Leu Ile Val Gly Ile Phe Val Leu Gln Lys Trp Arg Leu Gly 405 410 Gly Ile Arg Ser Tyr Asn Pro Glu Gln Ile Met Leu Ser Ala Ala Val

420 425 430

Arg Arg Thr Ser Arg Asp Val Ser Ile Met Lys Glu Lys Leu Ile Phe 435 430

Ser Glu Ile Ser Asp Gly Val Glu Val Ser Asp Val Leu Ser Val Cys 450

450 450 460

Ser Asp Asn Ser Tyr Asp Thr Tyr Ala Asn Ser Thr Ala Thr Pro Val 465 450

Gly Pro Arg Gly Gly Gly Ser His Thr Lys Thr Leu Ile Glu Arg Ser Ala Arg 495

Gly Arg 498

<210> 1064 <211> 374 <212>Amino acid <213> Homo sapiens

<400> 1064 Asn Ser Ala Asp Tyr Gly Asp Gly Pro Asp Ser Ser Asp Ala Asp Pro 10 Asp Ser Gly Thr Glu Glu Gly Val Leu Asp Phe Ser Asp Pro Phe Ser 25 Thr Glu Val Lys Pro Arg Ile Leu Leu Met Gly Leu Arg Arg Ser Gly 40 Lys Ser Ser Ile Gln Lys Val Val Phe His Lys Met Ser Pro Asn Glu 55 Thr Leu Phe Leu Glu Ser Thr Asn Lys Ile Cys Arg Glu Asp Val Ser 70 Asn Ser Ser Phe Val Asn Phe Gln Ile Trp Asp Phe Pro Gly Gln Ile 85 Asp Phe Phe Asp Pro Thr Phe Asp Tyr Glu Met Ile Phe Arg Gly Thr 105 Gly Ala Leu Ile Phe Val Ile Asp Ser Gln Asp Asp Tyr Met Glu Ala 120 Leu Ala Arg Leu His Leu Thr Val Thr Arg Ala Tyr Lys Val Asn Thr Asp Ile Asn Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp 155 Asp His Lys Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp 170 Asp Leu Ala Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu 185 Thr Ser Ile Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val 200 Gln Lys Leu Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile 215 220 Phe Ile Ser Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val 230 235 Ser Lys Ile Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr 245 250 Tyr Glu Leu Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys 265 Ile Tyr Gly Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu 280 Ser Thr Ala Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys 295 300 Glu Val Thr Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser 310 315 Phe Glu Arg Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys

Ala Ile His Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg
340 345 350

Lys Val Gln Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly
355 360 365

Thr Pro Arg Val Leu Leu
370 374

<210> 1065 <211> 278 <212>Amino acid <213> Homo sapiens

<400> 1065 Arg Thr Arg Gly Arg Asp Pro Gly Ala Gly Phe Arg Arg Thr Ala Asn 7.0 Lys Arg Cys Cys Arg Arg Arg Phe Leu Ile Gly Cys Gly Trp Leu Pro 25 Leu Arg Ser Asp Trp Pro Leu Val Ser Lys Met Leu Ser Lys Gly Leu 40 Lys Arg Lys Arg Glu Glu Glu Glu Lys Glu Pro Leu Ala Val Asp 55 Ser Trp Trp Leu Asp Pro Gly His Ala Ala Val Ala Gln Ala Pro Pro 70 Ala Val Ala Ser Ser Ser Leu Phe Asp Leu Ser Val Leu Lys Leu His 85 90 His Ser Leu Gln Gln Ser Glu Pro Asp Leu Arg His Leu Val Leu Val 100 105 110 Val Asn Thr Leu Arg Arg Ile Gln Ala Ser Met Ala Pro Ala Ala Ala 120 125 Leu Pro Pro Val Pro Ser Pro Pro Ala Ala Pro Ser Val Ala Asp Asn 135 140 Leu Leu Ala Ser Ser Asp Ala Ala Leu Ser Ala Ser Met Ala Ser Leu 150 155 Leu Glu Asp Leu Ser His Ile Glu Gly Leu Ser Gln Ala Pro Gln Pro 165 170 Leu Ala Asp Glu Gly Pro Pro Gly Arg Ser Ile Gly Gly Ala Ala Pro 185 Ser Leu Gly Ala Leu Asp Leu Leu Gly Pro Ala Thr Gly Cys Leu Leu 200 Asp Asp Gly Leu Glu Gly Leu Phe Glu Asp Ile Asp Thr Ser Met Tyr 215 Asp Asn Glu Leu Trp Ala Pro Ala Ser Glu Gly Leu Lys Pro Gly Pro 230 235 Glu Asp Gly Pro Gly Lys Glu Glu Ala Pro Glu Leu Asp Glu Ala Glu 245 250 Leu Asp Tyr Leu Met Asp Val Leu Val Gly Thr Gln Ala Leu Glu Arg 260 265 Pro Pro Gly Pro Gly Arg

<210> 1066 <211> 502 <212>Amino acid <213> Homo sapiens <220>

275 278

<221> misc_feature

<222> (1)...(502) <223> X = any amino acid or stop code

<400> 1066

Leu Gln Glu Val Lys Ala Arg Arg Asn Thr Leu His Lys Glu Lys Asp 1.0 His Leu Val Asn Asp Tyr Glu Gln Asn Met Lys Leu Leu Gln Thr Lys 25 Tyr Asp Ala Asp Ile Asn Leu Leu Lys Gln Glu His Ala Leu Ser Ala 40 Ser Lys Ala Ser Ser Met Ile Glu Glu Leu Glu Gln Asn Val Cys Gln 55 Leu Lys Gln Gln Leu Gln Glu Ser Glu Leu Gln Arg Lys Gln Gln Leu 70 Arg Asp Gln Glu Asn Lys Phe Gln Met Glu Lys Ser His Leu Lys His 85 90 Ile Tyr Glu Lys Lys Ala His Asp Leu Gln Ser Glu Leu Asp Lys Gly 100 105 Lys Glu Asp Thr Gln Lys Lys Ile His Lys Phe Glu Glu Ala Leu Lys 120 Trp Lys Lys Trp Arg Gln Ile Xaa Leu Asp Pro Asn Leu Leu Arg Glu 135 140 Lys Gln Ser Lys Glu Phe Leu Trp Gln Leu Glu Asp Ile Arg Gln Arg 150 1.55 Tyr Glu Gln Gln Ile Val Glu Leu Lys Leu Glu His Glu Gln Glu Lys 170 175 Thr His Leu Leu Gln Gln His Asn Ala Glu Lys Asp Ser Leu Val Arg 185 Asp His Glu Arg Glu Ile Glu Asn Leu Glu Lys Gln Leu Arg Ala Ala 200 Asn Met Glu His Glu Asn Gln Ile Gln Glu Phe Lys Lys Arg Asp Ala 215 220 Gln Val Ile Ala Asp Met Glu Ala Gln Val His Lys Leu Arg Glu Glu 230 235 Leu Ile Asn Val Asn Ser Gln Arg Lys Gln Gln Leu Val Glu Leu Gly 250 Leu Leu Arg Glu Glu Glu Lys Gln Arg Ala Thr Arg Glu His Glu Ile 265 Val Val Asn Lys Leu Lys Ala Glu Ser Glu Lys Met Lys Ile Glu Leu 280 Lys Lys Thr His Ala Ala Glu Thr Glu Met Thr Leu Glu Lys Ala Asn 295 300 Ser Lys Leu Lys Gln Ile Glu Lys Glu Tyr Thr Gln Lys Leu Ala Lys ` 310 315 Ser Ser Gln Ile Ile Ala Glu Leu Gln Thr Thr Ile Ser Ser Leu Lys 325 330 Glu Glu Asn Ser Gln Gln Gln Leu Ala Ala Glu Arg Arg Leu Gln Asp 345 Val Arg Gln Lys Phe Glu Asp Glu Lys Lys Gln Leu Ile Arg Asp Asn 360 Asp Gln Ala Ile Lys Val Leu Gln Asp Glu Leu Glu Asn Arg Ser Asn 375 380 Gln Val Arg Cys Ala Glu Lys Lys Leu Gln His Lys Glu Leu Glu Ser 390 395 Gln Glu Gln Ile Thr Tyr Ile Arg Gln Glu Tyr Glu Thr Lys Leu Lys 405 410 Gly Leu Met Pro Ala Ser Leu Arg Gln Glu Leu Glu Asp Thr Ile Ser 425 Ser Leu Lys Ser Gln Val Asn Phe Leu Gln Lys Arg Ala Ser Ile Leu 440

Gln Glu Glu Arg Asp Tyr Ile Ser Arg Gln Lys Val Gln Pro Ile Ser 450 460 455 450 460
Arg Xaa Leu His Glu Arg Met Gln Arg Met Arg Ile Ser Arg Leu Cys 465 470 475 480
Cys Gly Thr Ser Ser Ser Arg Phe Glu Asp Leu Asp Ile Val Asn Cys 485 485 490 490 495
Glu Ile Ser Gly Ile Phe 500 502

<210 > 1067
<211 > 301
<212 > Amino acid
<213 > Homo sapiens

<220 >
<221 > misc_feature
<222 > (1) ... (301)

<223> X = any amino acid or stop code

290

<400> 1067 Val Ile Asn Leu Val Tyr Leu Ile Ser Ser Pro Arg Pro Glu Leu Lys 10 Pro Val Asp Lys Glu Ser Glu Val Val Met Lys Phe Pro Asp Gly Phe 20 25 Glu Lys Phe Ser Pro Pro Ile Leu Gln Leu Asp Glu Val Asp Phe Tyr 40 Tyr Asp Pro Lys His Val Ile Phe Ser Arg Leu Ser Val Ser Ala Asp 55 Leu Glu Ser Arg Ile Cys Val Val Gly Glu Asn Gly Ala Gly Lys Ser 70 75 Thr Met Leu Lys Leu Leu Gly Asp Leu Ala Pro Val Arg Gly Ile 85 90 Arg His Ala His Arg Asn Leu Lys Ile Gly Tyr Phe Ser Gln His His 100 105 Val Glu Gln Leu Asp Leu Asn Val Gln Cys Leu Trp Glu Leu Ala Gly 120 His Ala Ser Phe Pro Gly Arg Pro Glu Glu Glu Tyr Arg His Gln Leu 135 Gly Phe Gly Met Gly Ile Ser Gly Glu Leu Ala Met Arg Pro Leu Cys 150 155 Gln Pro Val Leu Gly Ala Arg Lys Lys Pro Lys Trp Pro Phe Ala Gln 170 Met Asp Tyr Cys Pro Ala Pro Thr Phe Tyr Ile Leu Asp Glu Pro Thr 185 Asn His Leu Gly His Gly Arg Ala Ile Glu Ala Leu Gly Pro Cys Leu 200 Gln Thr Ile Ser Gly Val Gly Val Ile Leu Val Ser His Glu Xaa Ser 215 220 Ala Leu Ser Arg Leu Val Cys Arg Glu Leu Trp Val Cys Xaa Gly Gly 230 235 Gly Val Thr Arg Val Glu Arg Lys Asp Phe Asp Gln Tyr Arg Ala Leu 245 250 Leu Gln Gly Thr Val Ser Ala Arg Glu Gly Phe Pro Leu Gly Pro Pro 260 265 Arg Leu Lys Asp Ser Pro Arg Asp Met Gly Leu Val Ser Gln Thr Pro 280 Trp Gly His His Val Gly Tyr Pro Leu Pro Gly Arg Gly

295

<212>Amino acid <213> Homo sapiens <400> 1068 Cys Ser Ala Val Glu Val Lys Met Ala Ala Arg Thr Ala Phe Gly Ala 10 1.5 Val Cys Arg Arg Leu Trp Gln Gly Leu Gly Asn Phe Ser Val Asn Thr 20 25 Ser Lys Gly Asn Thr Ala Lys Asn Gly Gly Leu Leu Leu Ser Thr Asn 40 Met Lys Trp Val Gln Phe Ser Asn Leu His Val Asp Val Pro Lys Asp 55 Leu Thr Lys Pro Val Val Thr Ile Ser Asp Glu Pro Asp Ile Leu Tyr 70 Lys Arg Leu Ser Val Leu Val Lys Gly His Asp Lys Ala Val Leu Asp 85 Ser Tyr Glu Tyr Phe Ala Val Leu Ala Ala Lys Glu Leu Gly Ile Ser 1.00 105 Ile Lys Val His Glu Pro Pro Arg Lys Ile Glu Arg Phe Thr Leu Leu

Thr Leu Tyr Arg Cys Leu Glu Leu Glu His Leu Thr Gly Ser Thr Ala 150 155 Asp Val Tyr Leu Glu Tyr Ile Gln Arg Asn Leu Pro Glu Gly Val Ala 165 170 Met Glu Val Thr Lys Phe Cys Phe Phe Ile Phe Leu Thr Gln Leu Glu 185 Gln Leu Pro Glu His Ile Lys Glu Pro Ile Trp Glu Thr Leu Ser Glu

Gln Ser Val His Ile Tyr Lys Lys His Arg Val Gln Tyr Glu Met Arg 135

1.20

125

140

Glu Lys Glu Glu Ser Lys Ser 210

<210> 1069

<210> 1068 <211> 215

<211> 274 <212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (274)

<223> X = any amino acid or stop code

<400> 1069

Asp Phe Trp Asp Thr Ala Gly Gln Glu Arg Phe Gln Ser Met His Ala 10 Ser Tyr Tyr His Lys Thr His Ala Cys Ile Met Val Phe Asp Val Gln Arg Lys Val Thr His Arg Asn Leu Ser Thr Trp Tyr Thr Glu Leu Arg 40 Glu Phe Arg Pro Glu Ile Pro Cys Ile Val Val Ala Asn Lys Ile Asp 60

Gly Gly Ala Ile Pro Ala Pro Gly Cys Xaa Gln Phe Thr Gly Asp Leu 70 75 Pro Ser Tyr Ile Ser Ser Ser Ile Pro Arg Ala Gly Asn Leu Gln Xaa 85 . 90 Leu Val Leu Pro Pro Thr Ile Arg Tyr Asn Pro Trp Leu Val Ala Cys 100 105 Ile Leu Pro Thr Leu Xaa Arg Ser Gln Leu Ser Arg Pro Ala Leu Phe 120 Pro Arq His Arq Ser Leu Leu Thr Glu Leu Phe Leu Gly Pro Val Ser 135 Gln Ser Ser Leu Pro Ile Pro Leu Ser Gly Met Lys Ala Ser Ser Gly 155 Pro Pro Leu Gln Thr Phe Phe Pro Ser Leu Asp Arg Gln Thr Asn Val 170 Leu Pro Ser Leu Tyr Ala Asp Ile Asn Val Thr Gln Lys Ser Phe Asn 185 190 180 Phe Ala Lys Lys Phe Ser Leu Pro Leu Tyr Phe Val Ser Ala Ala Asp . 195 200 205 Gly Thr Asn Val Val Lys Leu Phe Asn Asp Ala Ile Arg Leu Ala Val 215 220 Ser Tyr Lys Gln Asn Ser Gln Asp Phe Met Asp Glu Ile Phe Gln Glu 230 235 Leu Glu Asn Phe Ser Leu Glu Gln Glu Glu Glu Asp Val Pro Asp Gln 245 250 Glu Gln Ser Ser Ser Ile Glu Thr Pro Ser Glu Glu Val Ala Ser Pro 265 His Ser

274

<210> 1070 <211> 368 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature <222> (1)...(368)

<223> X = anv amino acid or stop code

<400> 1070 Gly Ala Thr Pro Leu Gly Ser Val Gly Gly Arg Thr Gly Lys Met Asp 5 10 Ala Ala Thr Leu Thr Tyr Asp Thr Leu Arg Phe Ala Glu Phe Glu Asp 25 Phe Pro Glu Thr Ser Glu Pro Val Trp Ile Leu Gly Arg Lys Tyr Ser 40 Ile Phe Thr Glu Lys Asp Glu Ile Leu Ser Asp Val Ala Ser Arg Leu 55 Trp Phe Thr Tyr Arg Lys Asn Phe Pro Ala Ile Gly Gly Thr Gly Pro 70 75 Thr Ser Asp Thr Gly Trp Gly Cys Met Leu Arg Cys Gly Gln Met Ile 90 Phe Ala Gln Ala Leu Val Cys Arg His Leu Gly Arg Asp Trp Arg Trp 100 105 Thr Gln Arg Lys Arg Gln Pro Asp Ser Tyr Phe Ser Val Leu Asn Ala 120 125 Phe Ile Asp Arg Lys Asp Ser Tyr Tyr Ser Ile His Gln Ile Ala Gln 135 140 Met Gly Val Gly Glu Gly Lys Ser Ile Gly Gln Trp Tyr Gly Pro Asn

```
150
                                155
Thr Val Ala Gln Val Leu Lys Lys Leu Ala Val Phe Asp Thr Trp Ser
            165
                 170
Ser Leu Ala Val His Ile Ala Met Asp Asn Thr Val Val Met Glu Glu
                         185
Ile Arg Arg Leu Cys Arg Thr Ser Val Pro Cys Ala Gly Ala Thr Ala
                    200
                                      205
Phe Pro Ala Asp Ser Asp Arg His Cys Asn Gly Phe Pro Ala Gly Ala
                  215 220
Glu Val Thr Asn Arg Pro Ser Pro Trp Arg Pro Leu Val Leu Leu Ile
               230 235 240
Pro Leu Arg Leu Gly Leu Thr Asp Ile Asn Glu Ala Tyr Val Glu Thr
           245 250
Leu Lys His Cys Phe Met Met Pro Gln Ser Leu Gly Val Ile Gly Gly
        260 265
Lys Pro Asn Ser Ala His Tyr Phe Ile Gly Xaa Val Gly Glu Glu Leu
     275
                     280
Ile Tyr Leu Asp Pro His Thr Thr Gln Pro Ala Val Glu Pro Thr Asp
            295
                                   300
Gly Cys Phe Ile Pro Asp Glu Ser Phe His Cys Gln His Pro Pro Cys
               310 315
Arg Met Ser Ile Ala Glu Leu Asp Pro Ser Ile Ala Val Val Arg Gly
            325
                            330
Gly His Leu Ser Thr Gln Ala Phe Gly Ala Glu Cys Cys Leu Gly Met
                        345
Thr Arg Lys Thr Phe Gly Phe Leu Arg Phe Phe Phe Ser Met Leu Gly
                     360
```

<210> 1071 <211> 81 <212>Amino acid <213> Homo sapiens

<210> 1072 <211> 494 <212>Amino acid <213> Homo sapiens

<400> 1072 Thr Arg Leu Ala Glu Phe Gly Thr Arg Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly Pro Gln Gly Tyr Ser Cys His 2.0 Cys Arg Leu Gly Phe Arg Pro Ala Glu Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Gly Asp Glu Leu Leu Asp Asp Gly Glu Asp Glu Glu Asp Glu Asp Glu Ala Trp Lys Ala Phe Asn Gly Gly Trp Thr Glu Met Pro Gly Ile Leu Trp Met Glu Pro Thr Gln Pro Pro Asp Phe Ala Leu Ala Tyr Arg Pro Ser Phe Pro Glu Asp Arg Glu Pro Gln Ile Pro Tyr Pro Glu Pro Thr Trp Pro Pro Pro Leu Ser Ala Pro Arg Val Pro Tyr His Ser Ser Val Leu Ser Val Thr Arg Pro Val Val Val Ser Ala Thr His Pro Thr Leu Pro Ser Ala His Gln Pro Pro Val Ile Pro Ala Thr His Pro Ala Leu Ser Arg Asp His Gln Ile Pro Val Ile Ala Ala Asn Tyr Pro Asp Leu Pro Ser Ala Tyr Gln Pro Gly Ile Leu Ser Val Ser His Ser Ala Gln Pro Pro Ala His Gln Pro Pro Met Ile Ser Thr Lys Tyr Pro Glu Leu Phe Pro Ala His Gln Ser Pro Met Phe Pro Asp Thr Arg Val Ala Gly Thr Gln Thr Thr Thr His Leu Pro Gly Ile Pro Pro Asn His Ala Pro Leu Val Thr Thr Leu Gly Ala Gln Leu Pro Pro Gln Ala Pro Asp Ala Leu Val Leu Arg Thr Gln Ala Thr Gln Leu Pro Ile Ile Pro Thr Ala Gln Pro Ser Leu Thr Thr Thr Ser Arg Ser Pro Val Ser Pro Ala His Gln Ile Ser Val Pro Ala Ala Thr Gln Pro Ala Ala Leu Pro Thr Leu Leu Pro Ser Gln Ser Pro Thr Asn Gln Thr Ser Pro Ile Ser Pro Thr His Pro His Ser Lys Ala Pro Gln Ile Pro Arg Glu Asp Gly Pro Ser Pro Lys Leu Ala Leu Trp Leu Pro Ser Pro Ala Pro Thr Ala Ala Pro Thr Ala Leu Gly Glu Ala Gly Leu Ala Glu His Ser Gln Arg Asp Asp Arg Trp Leu Leu Val Ala Leu Leu Val Pro Thr Cys Val Phe Leu Val Val Leu Leu Ala Leu Gly Ile Val Tyr Cys Thr Arg Cys Gly Pro His Ala Pro Asn Lys Arg Ile Thr Asp Cys Tyr Arg Trp Val Ile His Ala Gly Ser Lys Ser Pro Thr Glu Pro Met Pro Pro Arg Gly Ser Leu Thr Gly Val Gln Thr Cys Arg Thr Ser Val

<210> 1073 <211> 468 <212>Amino acid <213> Homo sapiens

<400> 1073 Leu Arg Val Arg Arg Pro His Leu Pro Ala Pro Pro Ala Leu Arg 10 Ala Arg Arg Ser Asp Arg Arg Ser Ser Arg Ala Pro Ala Ala Phe Pro 25 Pro Arg Pro Pro His Ala Ser Pro Ala Pro Gly Pro Ala Met Ala Gln 40 Ala Val Trp Ser Arg Leu Gly Arg Ile Leu Trp Leu Ala Cys Leu Leu 55 Pro Trp Ala Pro Ala Gly Val Ala Ala Gly Leu Tyr Glu Leu Asn Leu 70 75 Thr Thr Asp Ser Pro Ala Thr Thr Gly Ala Val Val Thr Ile Ser Ala 90 Ser Leu Val Ala Lys Asp Asn Gly Ser Leu Ala Leu Pro Ala Asp Ala 105 His Leu Tyr Arg Phe His Trp Ile His Thr Pro Leu Val Leu Thr Gly 125 115 120 Lys Met Glu Lys Gly Leu Ser Ser Thr Ile Arg Val Val Gly His Val 135 140 Pro Gly Glu Phe Pro Val Ser Val Trp Val Thr Ala Ala Asp Cys Trp 150 155 Met Cys Gln Pro Val Ala Arg Gly Phe Val Val Leu Pro Ile Thr Glu 165 170 175 Phe Leu Val Gly Asp Leu Val Val Thr Gln Asn Thr Ser Leu Pro Trp 180 185 190 Pro Ser Ser Tyr Leu Thr Lys Thr Val Leu Lys Val Ser Phe Leu Leu 200 205 His Asp Pro Ser Asn Phe Leu Lys Thr Ala Leu Phe Leu Tyr Ser Trp 215 220 Asp Phe Gly Asp Gly Thr Gln Met Val Thr Glu Asp Ser Val Val Tyr 230 235 Tyr Asn Tyr Ser Ile Ile Gly Thr Phe Thr Val Lys Leu Lys Val Val 250 255 Ala Glu Trp Glu Glu Val Glu Pro Asp Ala Thr Arg Ala Val Lys Gln 265 Lys Thr Gly Asp Phe Ser Ala Ser Leu Lys Leu Gln Glu Thr Leu Arg 280 285 Gly Ile Gln Val Leu Gly Pro Thr Leu Ile Gln Thr Phe Gln Lys Met 295 Thr Val Thr Leu Asn Phe Leu Gly Ser Pro Pro Leu Thr Val Cys Trp 310 315 Arg Leu Lys Pro Glu Cys Leu Pro Leu Glu Glu Gly Glu Cys His Pro 330 Val Ser Val Ala Ser Thr Ala Tyr Asn Leu Thr His Thr Phe Arg Asp 345 Pro Gly Asp Tyr Cys Phe Ser Ile Arg Ala Glu Asn Ile Ile Ser Lys 360 Thr His Gln Tyr His Lys Ile Gln Val Trp Pro Ser Arg Ile Gln Pro 375 380 Ala Val Phe Ala Phe Pro Cys Ala Thr Leu Ile Thr Val Met Leu Ala 390 395 Phe Ile Met Tyr Met Thr Leu Arg Asn Ala Thr Gln Gln Lys Asp Met 405 410 Val Glu Asn Pro Glu Pro Pro Ser Gly Val Arg Cys Cys Cys Gln Met

Cys Cys Gly Pro Phe Leu Leu Glu Thr Pro Ser Glu Tyr Leu Glu Ile
435 440 445

Val Arg Glu Asn His Gly Leu Leu Pro Pro Leu Tyr Lys Ser Val Lys
450 450

Thr Tyr Thr Val
468

<210> 1074 <211> 288 <212>Amino acid <213> Homo sapiens

<400> 1074 Val Val Glu Phe Ala Phe Gln Leu Ser Ser Val Ser Val Cys Leu Thr 1 5 10 1.5 Val Ser Phe Gly Trp Gln Leu Gly Thr Val Ser Ser Cys Leu Ser Arg 20 25 Asp Trp Phe Leu Lys Gly Asn Leu Leu Ile Ile Val Ser Val Leu 35 40 Ile Ile Leu Pro Leu Ala Leu Met Lys His Leu Gly Tyr Leu Gly Tyr 50 55 Thr Ser Gly Leu Ser Leu Thr Cys Met Leu Phe Phe Leu Val Ser Val 65 70 75 Ile Tyr Lys Lys Phe Gln Leu Gly Cys Ala Ile Gly His Asn Glu Thr 90 Ala Met Glu Ser Glu Ala Leu Val Gly Leu Pro Ser Gln Gly Leu Asn 105 110 Ser Ser Cys Glu Ala Gln Met Phe Thr Val Asp Ser Gln Met Ser Tyr 120 125 Thr Val Pro Ile Met Ala Phe Ala Phe Val Cys His Pro Glu Val Leu 135 140 Pro Ile Tyr Thr Glu Leu Cys Arg Pro Ser Lys Arg Arg Met Gln Ala 150 155 160 Val Ala Asn Val Ser Ile Gly Ala Met Phe Cys Met Tyr Gly Leu Thr 170 165 Ala Thr Phe Gly Tyr Leu Thr Phe Tyr Ser Ser Val Lys Ala Glu Met 180 185 190 Leu His Met Tyr Ser Gln Lys Asp Pro Leu Ile Leu Cys Val Arg Leu 200 205 Ala Val Leu Leu Ala Val Thr Leu Thr Val Pro Val Val Leu Phe Pro 215 220 Ile Arg Arg Ala Leu Gln Gln Leu Leu Phe Pro Gly Lys Ala Phe Ser 230 235 Trp Pro Arg His Val Ala Ile Ala Leu Ile Leu Leu Val Leu Val Asn 245 250 Val Leu Val Ile Cys Val Pro Thr Ile Arg Asp Ile Phe Gly Val Ile 260 265 270 Gly Ser Thr Ser Ala Pro Ser Leu Ile Phe Ile Leu Pro Ser Cys Ile 280 285 288

<210> 1075 <211> 273 <212>Amino acid

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(273)
<223> X = any amino acid or stop code

<400> 1075 Gly Ala Gly Ser Lys Ser Ser Met Met Gln Leu Met His Leu Glu Ser 10 Phe Tyr Glu Lys Pro Pro Pro Gly Leu Ile Lys Glu Asp Asp Thr Lys 25 Pro Glu Asp Cys Ile Pro Asp Val Pro Gly Asn Glu His Ala Arg Glu 40 Phe Leu Ala His Thr Pro Thr Lys Gly Leu Trp Met Pro Leu Glu Lys 55 Glu Val Lys Val Lys His Cys Thr Phe His Trp Ile Ala Ser Xaa Phe 70 Leu Gly Asp Gly Lys Phe Ile Pro Lys Ala Thr Arg Leu Lys Asp Val 85 90 Trp Val Ser Asn Xaa Phe Thr Cys Leu Phe Trp Asp Leu Thr Arg Phe 105 Ile His Asp Cys Ile Phe Phe Xaa Asn Trp Ser Leu Met Asn Lys Asn 120 Phe Asn Ile Ile Tyr Xaa Phe Phe Ile Ser Leu Arg Xaa Asn Thr Leu 135 140 Ile Leu Gln Lys Tyr Phe Pro Phe Ser Leu Leu Leu Gly Trp His Cys 150 155 Lys Trp Tyr Gly His Arg Thr Gly Tyr Lys Glu Cys Pro Phe Phe Ile 165 170 Lys Asp Asn Gln Lys Leu Gln Gln Phe Arg Val Ala His Glu Asp Phe 185 Met Tyr Asp Ile Ile Arg Asp Asn Lys Gln His Glu Lys Asn Val Arg 200 Ile Gln Gln Leu Lys Gln Leu Leu Glu Asp Ser Thr Ser Gly Glu Asp 215 220 Arg Ser Ser Ser Ser Ser Ser Glu Gly Lys Glu Lys His Lys Lys Lys 230 235 Lys Lys Lys Glu Lys His Lys Lys Arg Lys Lys Glu Lys Lys Lys 245 250 Lys Lys Arg Lys His Lys Ser Ser Lys Ser Asn Glu Gly Ser Asp Ser 260 Glu 273

<210 > 1076
<211 > 815
<212 > Amino acid
<213 > Homo sapiens
<220 >
<221 misc_feature
<222 > (1) ... (815)
<223 > X = any amino acid or stop code

<400> 1076
Glu Ile Ala Gly Ala Ala Ala Glu Asn Met Leu Gly Ser Leu Leu Cys

10 Leu Pro Gly Ser Gly Ser Val Leu Leu Asp Pro Cys Thr Gly Ser Thr 25 Ile Ser Glu Thr Thr Ser Glu Ala Trp Ser Val Glu Val Leu Pro Ser Asp Ser Glu Ala Pro Asp Leu Lys Gln Glu Glu Arg Leu Gln Glu Leu Glu Ser Cys Ser Gly Leu Gly Ser Thr Ser Asp Asp Thr Asp Val Arg Glu Val Ser Ser Arg Pro Ser Thr Pro Gly Leu Ser Val Val Ser Gly 85 90 Ile Ser Ala Thr Ser Glu Asp Ile Pro Asn Lys Ile Glu Asp Leu Arg 105 Ser Glu Cys Ser Ser Asp Phe Gly Gly Lys Asp Ser Val Thr Ser Pro 120 Asp Met Asp Glu Ile Thr His Asp Phe Leu Tyr Ile Leu Gln Pro Lys 135 Gln His Phe Gln His Ile Glu Ala Glu Ala Asp Met Arg Ile Gln Leu 150 Ser Ser Ser Ala His Gln Leu Thr Ser Pro Pro Ser Gln Ser Glu Ser 165 170 Leu Leu Ala Met Phe Asp Pro Leu Ser Ser His Glu Gly Ala Ser Ala 185 Val Val Arg Pro Lys Val His Tyr Ala Arg Pro Ser His Pro Pro Pro 200 Asp Pro Pro Ile Leu Glu Gly Ala Val Gly Gly Asn Glu Ala Arg Leu 215 Pro Asn Phe Gly Ser Pro Met Phe Kaa Leu Pro Ala Glu Met Glu Ala 230 235 Phe Lys Gln Arg His Ser Tyr Thr Pro Glu Arg Leu Val Arg Ser Arg 250 Ser Ser Asp Ile Val Ser Ser Val Arg Arg Pro Met Ser Asp Pro Ser 265 Trp Asn Arg Arg Pro Gly Asn Glu Glu Arg Glu Leu Pro Pro Ala Ala 280 Ala Ile Gly Ala Thr Ser Leu Val Ala Ala Pro His Ser Ser Ser Ser 295 300 Ser Pro Ser Lys Asp Ser Ser Arg Gly Glu Thr Glu Glu Arg Lys Asp 310 315 Ser Asp Asp Glu Lys Ser Asp Arg Asn Arg Pro Trp Trp Arg Lys Arg 325 330 Phe Val Ser Ala Met Pro Lys Ala Pro Ile Pro Phe Arg Lys Lys Glu 345 Lys Gln Glu Lys Asp Lys Asp Asp Leu Gly Pro Asp Arg Phe Ser Thr 360 Leu Thr Asp Asp Pro Ser Pro Arg Leu Ser Ala Gln Ala Gln val Ala 375 380 Glu Asp Ile Leu Asp Lys Tyr Arg Asn Ala Ile Lys Arg Thr Ser Pro 390 395 Ser Asp Gly Ala Met Ala Asn Tyr Glu Ser Thr Glu Val Met Gly Asp 405 410 Gly Glu Ser Ala His Asp Ser Pro Arg Asp Glu Ala Leu Gln Asn Ile 425 Ser Ala Asp Asp Leu Pro Asp Ser Ala Ser Gln Ala Ala His Pro Gln 440 Asp Ser Ala Phe Ser Tyr Arg Asp Ala Lys Lys Leu Arg Leu Ala 455 460 Leu Cys Ser Ala Asp Ser Val Ala Phe Pro Val Leu Thr His Ser Thr 470 475 Arg Asn Gly Leu Pro Asp His Thr Asp Pro Glu Asp Asn Glu Ile Val 485 490 Cys Phe Leu Lys Val Gln Ile Ala Glu Ala Ile Asn Leu Gln Asp Lys 505 Asn Leu Met Ala Gln Leu Gln Glu Thr Met Arg Cys Val Cys Arg Phe

520 Asp Asn Arg Thr Cys Arg Lys Leu Leu Ala Ser Ile Ala Glu Asp Tyr 535 540 Arg Lys Arg Ala Pro Tyr Ile Ala Tyr Leu Thr Arg Cys Arg Gln Gly 550 555 Leu Gln Thr Thr Gln Ala His Leu Glu Arg Leu Leu Gln Arg Val Leu 565 570 Arg Asp Lys Glu Val Ala Asn Arg Tyr Phe Thr Thr Val Cys Val Arg 585 Leu Leu Leu Glu Ser Lys Glu Lys Lys Ile Arg Glu Phe Ile Gln Asp 600 605 Phe Gln Lys Leu Thr Ala Ala Asp Asp Lys Thr Ala Gln Val Glu Asp 615 Phe Leu Gln Phe Leu Tyr Gly Ala Met Ala Gln Asp Val Ile Trp Gln 630 635 Asn Ala Ser Glu Glu Gln Leu Gln Asp Ala Gln Leu Ala Ile Glu Arg Ser Val Met Asn Arg Ile Phe Lys Leu Ala Phe Tyr Pro Asn Gln Asp 665 Gly Asp Ile Leu Arg Asp Gln Val Leu His Glu His Ile Gln Arg Leu 680 Ser Lys Val Val Thr Ala Asn His Arg Ala Leu Gln Ile Pro Glu Val 695 700 Tyr Leu Arg Glu Ala Pro Trp Pro Ser Ala Gln Ser Glu Ile Arg Thr 710 715 Ile Ser Ala Tyr Lys Thr Pro Arg Asp Lys Val Gln Cys Ile Leu Arg 725 730 Met Cys Ser Thr Ile Met Asn Leu Leu Ser Leu Ala Asn Glu Asp Ser 745 750 Val Pro Gly Ala Asp Asp Phe Val Pro Val Leu Val Phe Val Leu Ile 755 760 765 Lys Ala Asn Pro Pro Cys Leu Leu Ser Thr Val Gln Tyr Ile Ser Ser 775 780 Phe Tyr Ala Ser Cys Leu Ser Gly Glu Glu Ser Tyr Trp Trp Met Gln 790 795 Phe Thr Ala Ala Val Glu Phe Ile Lys Thr Ile Asp Asp Arg Lys

<210> 1077

<211> 256 <212>Amino acid

<213> Homo sapiens

<400> 1077

Trp Pro Net Ser Leu Ala Arg Gly His Gly Asp Thr Ala Ala Ser Thr 1 10 15 15 Ala Ala Pro Leu Ser Glu Glu Gly Glu Val Thr Ser Gly Leu Gln Ala 35 Leu Ala Val Glu Asp Thr Gly Gly Pro Ser Ala Ser Ala Gly Lys Ala 35 Glu Asp Glu Gly Gly Gly Pro Ser Ala Ser Ala Gly Lys Ala 35 Glu Asp Glu Gly Gly Gly Arg Glu Glu Thr Glu Arg Glu Gly Ser 50 Gly Gly Glu Glu Ala Gln Gly Glu Val Pro Ser Ala Gly Gly Glu Glu Glu Gly Gly Gly Gly Glu Glu Val Pro Ser Ala Gly Gly Glu Glu Gly Gly Gly Glu Glu Asp Ser Glu Asp Trp Cys Val Pro Cys Ser Asp Glu Glu Val Glu Glu Gly Glu Val Glu Gly Glu Glu Asp Ser Glu Asp Gly Gln Pro Trp Met Pro Pro Pro Ser 100 105 105 105 110 Glu Ile Glu Arg Leu Tyr Glu Leu Leu Ala Ala His Gly Thr Leu Glu

595

120 Leu Gln Ala Glu Ile Leu Pro Arg Arg Pro Pro Thr Pro Glu Ala Gln 130 135 140 Ser Glu Glu Glu Arg Ser Asp Glu Glu Pro Glu Ala Lys Glu Glu Glu 155 150 Glu Glu Lys Pro His Met Pro Thr Glu Phe Asp Phe Asp Asp Glu Pro 165 170 Val Thr Pro Lys Asp Ser Leu Ile Asp Arg Arg Thr Pro Gly Ser 185 180 Ser Ala Arg Ser Gln Lys Arg Glu Ala Arg Leu Asp Lys Val Leu Ser 200 Asp Met Lys Arg His Lys Lys Leu Glu Glu Gln Ile Leu Arg Thr Gly 215 Arg Asp Leu Phe Ser Leu Asp Ser Glu Asp Pro Ser Pro Ala Ser Pro 230 235 Pro Leu Arg Ser Ser Gly Ser Ser Leu Phe Pro Arg Gln Arg Lys Tyr

<210> 1078 <211> 590 <212>Amino acid <213> Homo sapiens

<221> misc_feature <222> (1)...(590)

<223> X = any amino acid or stop code

<400> 1078 Leu Gly Arg Gly Thr Phe Gly Gln Val Val Xaa Cys Trp Lys Arg Gly Thr Asn Glu Ile Val Ala Ile Lys Ile Leu Lys Asn His Pro Ser Tyr 25 Ala Arg Gln Gly Gln Ile Glu Val Ser Ile Leu Ala Arg Leu Ser Thr 40 Glu Ser Ala Asp Asp Tyr Asn Phe Val Arg Ala Tyr Glu Cys Phe Gln 55 His Lys Asn His Thr Cys Leu Val Phe Glu Met Leu Glu Gln Asn Leu Tyr Asp Phe Leu Lys Gln Asn Lys Phe Ser Pro Leu Pro Leu Lys Tyr 90 Ile Arg Pro Val Leu Gln Gln Val Ala Thr Ala Leu Met Lys Leu Lys 105 Ser Leu Gly Leu Ile His Ala Asp Leu Lys Pro Glu Asn Ile Met Leu 120 Val Asp Pro Ser Arg Gln Pro Tyr Arg Val Lys Val Ile Asp Phe Gly 135 Ser Ala Ser His Val Ser Lys Ala Val Cys Ser Thr Tyr Leu Gln Ser 150 155 Arg Tyr Tyr Arg Ala Pro Glu Ile Ile Leu Gly Leu Pro Phe Cys Glu 170 Ala Ile Asp Met Trp Ser Leu Gly Cys Val Ile Ala Glu Leu Phe Leu 185 190 Gly Trp Pro Leu Tyr Pro Gly Ala Ser Glu Tyr Asp Gln Ile Arg Tyr 200 Ile Ser Gln Thr Gln Gly Leu Pro Ala Glu Tyr Leu Leu Ser Ala Gly 210 215

Thr Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu Lys Ala Val Arg Arg Glu Phe Ile Asp Léu Leu Lys Lys Met Leu Ser Ile Asp Ser Val Lys Arg Phe Ser Pro Val Gly Ser Leu Asn His Pro Phe Val Thr Met Ser Leu Phe Leu Asp Phe Pro His Ser Thr His Val Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Val Ala Gln Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Phe Gln Gly Leu Gln Ala Ser Pro Ser Lys His Ala Gly Tyr Ser Val Arg Met Glu Asn Ala Val Pro Ile Val Thr Gln Ala Pro Gly Ala Gln Pro Leu Gln Ile Gln Pro Gly Leu Leu Ala Gln Gln Ala Trp Pro Ser Gly Thr Gln Gln Ile Leu Leu Pro Pro Ala Trp Gln Gln Leu Thr Gly Val Ala Thr His Thr Ser Val Gln His Ala Ala Val Ile Pro Glu Thr Met Ala Gly Thr Gln Gln Leu Ala Asp Trp Arg Asn Thr His Ala His Gly Ser His Tyr Asn Pro Ile Met Gln Gln Pro Ala Leu Leu Thr Gly His Val Thr Leu Pro Ala Ala Gln Pro Leu Asn Val Gly Val Ala His Val Met Arg Gln Gln Pro Thr Ser Thr Thr Ser Ser Arg Lys Ser Lys Gln His Leu Tyr Cys Gly Arg Ala Arg Val Ser Lys Ile Ala Ser Arg

```
<210    1079
<211    904
<212-Amino acid
<213    Fomo sapiens
<220>
<221    misc_feature
<222    (1)...(904)
<223    X    any amino acid or stop code</pre>
```

 ${<}400{>}\ 1079$ Glu Phe Ala Ile Cys Arg Tyr Pro Leu Gly Met Ser Gly Gly Gln Ile

Pro Asp Glu Asp Ile Thr Ala Ser Ser Gln Trp Ser Glu Ser Thr Ala 25 Ala Lys Tyr Gly Arg Leu Asp Ser Glu Glu Gly Asp Gly Ala Trp Cys Pro Glu Ile Pro Val Glu Pro Asp Asp Leu Lys Glu Phe Leu Gln Ile 55 Asp Leu His Thr Leu His Phe Ile Thr Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly His Gly Ile Glu Phe Ala Pro Met Tyr Lys Ile Asn 85 90 Tyr Ser Arg Asp Gly Thr Arg Trp Ile Ser Trp Arg Asn Arg His Gly 100 105 110 Lys Gln Val Leu Asp Gly Asn Ser Asn Pro Tyr Asp Ile Phe Leu Lys 115 . 120 Asp Leu Glu Pro Pro Ile Val Ala Arg Phe Val Arg Phe Ile Pro Val 135 Thr Asp His Ser Met Asn Val Cys Met Arg Val Glu Leu Tyr Gly Cys 150 155 Val Trp Leu Asp Gly Leu Val Ser Tyr Asn Ala Pro Ala Gly Gln Gln 165 170 Phe Val Leu Pro Gly Gly Ser Ile Ile Tyr Leu Asn Asp Ser Val Tyr 185 Asp Gly Ala Val Gly Tyr Ser Met Thr Glu Gly Leu Gly Gln Leu Thr 200 205 Asp Gly Val Ser Gly Leu Asp Asp Phe Thr Gln Thr His Glu Tyr His 215 Val Trp Pro Gly Tyr Asp Tyr Val Gly Trp Arg Asn Glu Ser Ala Thr 230 235 Asn Gly Tyr Ile Glu Ile Met Phe Glu Phe Asp Arg Ile Arg Asn Phe 245 250 Thr Thr Met Lys Val His Cys Asn Asn Met Phe Ala Lys Gly Val Lys 265 Ile Phe Lys Glu Val Gln Cys Tyr Phe Arg Ser Glu Ala Ser Glu Trp 280 Glu Pro Asn Ala Ile Ser Phe Pro Leu Val Leu Asp Asp Val Asn Pro 295 Ser Ala Arg Phe Val Thr Val Pro Leu His His Arg Met Ala Ser Ala 315 310 Ile Lys Cys Gln Tyr His Phe Ala Asp Thr Trp Met Met Phe Ser Glu 325 330 . Ile Thr Phe Gln Ser Asp Ala Ala Met Tyr Asn Asn Ser Glu Ala Leu 345 340 Pro Thr Ser Pro Met Ala Pro Thr Thr Tyr Asp Pro Met Leu Lys Val 360 Asp Asp Ser Asn Thr Arg Ile Leu Ile Gly Cys Leu Val Ala Ile Ile 375 380 Phe Ile Leu Leu Ala Ile Ile Val Ile Ile Leu Trp Arg Gln Phe Trp 390 395 Gln Lvs Met Leu Glu Lvs Ala Ser Arq Arq Met Leu Asp Asp Glu Met 405 410 Thr Val Ser Leu Ser Leu Pro Ser Asp Ser Ser Met Phe Asn Asn Asn 425 Arg Ser Ser Ser Pro Ser Glu Gln Gly Ser Asn Ser Thr Tyr Asp Arg 440 Ile Phe Pro Leu Arg Pro Asp Tyr Gln Glu Pro Ser Arg Leu Ile Arg 455 460 Lys Leu Pro Glu Phe Ala Pro Gly Glu Glu Glu Ser Gly Cys Ser Gly 470 475 Val Val Lys Pro Val Gln Pro Ser Gly Pro Glu Gly Val Pro His Tyr 485 490 Ala Glu Ala Asp Ile Val Asn Leu Gln Gly Val Thr Gly Gly Asn Thr 500 505 Tyr Ser Val Pro Ala Val Thr Met Asp Leu Leu Ser Gly Lys Arg Cys

```
520
Gly Cys Gly Arg Glu Phe Pro Pro Gly Lys Leu Leu Thr Phe Lys Glu
          535
Lys Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu Cys Glu Val Glu
                            555
Gly Met Glu Lys Phe Lys Asp Lys Asp Phe Ala Leu Asp Val Ser Ala
                570
Asn Gln Pro Val Leu Val Ala Val Lys Met Leu Arg Ala Asp Ala Asn
                      585
Lys Asn Ala Arg Asn Asp Phe Leu Lys Glu Ile Lys Ile Met Ser Arg
                   600
Leu Lys Asp Pro Asn Ile Ile His Leu Leu Ser Val Cys Ile Thr Asp
        615 620
Asp Pro Leu Cys Met Ile Thr Glu Tyr Met Glu Asn Gly Asp Leu Asn
      630
                            635
Gln Phe Leu Ser Arg His Glu Pro Pro Asn Ser Ser Ser Ser Asp Val
           645
                           650
Arg Thr Val Ser Tyr Thr Asn Leu Lys Phe Met Ala Thr Gln Ile Ala
             665 670
Ser Gly Met Lys Tyr Leu Ser Ser Leu Asn Phe Val His Arg Asp Leu
             680
Ala Thr Arg Asn Cys Leu Val Gly Lys Asn Tyr Thr Ile Lys Ile Ala
             695
Asp Phe Gly Met Ser Arg Asn Leu Tyr Ser Gly Asp Tyr Tyr Arg Ile
               710
                             715
Gln Gly Arg Ala Val Leu Pro Ile Arg Trp Met Ser Trp Glu Ser Ile
            725
                           730 735
Leu Leu Gly Lys Phe Thr Thr Ala Ser Asp Val Trp Ala Phe Gly Val
        740
                        745
Thr Leu Trp Glu Thr Phe Thr Phe Cys Gln Arg Lys Gly Pro Tyr Ser
         760 765
Gln Leu Ser Asp Glu Thr Gly Tyr Xaa Arg Asn Thr Gly Glu Phe Phe
       775 780
Pro Arg Pro Lys Gly Gly Gln Thr Tyr Leu Pro Ser Thr Ser Pro Phe
              790 795 800
Val Pro Asp Ser Cys Val Ile Lys Leu Met Leu Ser Cys Trp Arg Arg
           805 810 815
Asp Thr Lys Asn Arg Pro Ser Phe Gln Glu Ile His Leu Leu Leu
                       825
        820
Gln Gln Gly Asp Glu Arg Cys Cys Gln Cys Leu Ala Met Phe Leu Arg
                    840
    835
Leu Arg Ser Ser Leu Gln Asp Leu Pro Leu Thr His Ala Tyr Ala Thr
 850 855 860
Pro Ser Gly His Leu Met Lys Leu Arg Asp Arg Gly Leu Phe Ala Leu
            870 875
Pro Ser Phe Pro Gly His Pro His Ser Leu Pro Leu Thr His Ile Tyr
           885
                          890
Phe Phe Phe Thr Leu Lys Asn
        900
```

<400> 1080

<210> 1080

<211> 304 <212>Amino acid

<212>Amino acid <213> Homo sapiens

Cys Ser Ala Ser Pro Leu Arg Pro Gly Leu Leu Ala Pro Asp Leu Leu 1 5 10 15
Tyr Leu Pro Gly Ala Gly Gln Pro Arg Pro Glu Ala Glu Pro Gly

Gln Lys Pro Val Val Pro Thr Leu Tyr Val Thr Glu Ala Glu Ala His 40 Ser Pro Ala Leu Pro Gly Leu Ser Gly Pro Gln Pro Lys Trp Val Glu 55 Val Glu Glu Thr Ile Glu Val Arg Val Lys Lys Met Gly Pro Gln Gly 70 75 Val Ser Pro Thr Thr Glu Val Pro Arg Ser Ser Ser Gly His Leu Phe 90 Thr Leu Pro Gly Ala Thr Pro Gly Gly Asp Pro Asn Ser Asn Asn Ser 100 105 Asn Asn Lys Leu Leu Ala Gln Glu Ala Trp Ala Gln Gly Thr Ala Met 115 120 Val Gly Val Arg Glu Pro Leu Val Phe Arg Val Asp Ala Arg Gly Ser 135 Val Asp Trp Ala Ala Ser Gly Met Gly Ser Leu Glu Glu Glu Gly Thr 150 155 Met Glu Glu Ala Gly Glu Glu Glu Gly Glu Asp Gly Asp Ala Phe Val 165 170 Thr Glu Glu Ser Gln Asp Thr His Ser Leu Gly Asp Arg Asp Pro Lys 185 190 Ile Leu Thr His Asn Gly Arg Met Leu Thr Leu Ala Asp Leu Glu Asp 200 Tyr Val Pro Gly Glu Gly Glu Thr Phe His Cys Gly Gly Pro Gly Pro 215 220 Gly Ala Pro Asp Asp Pro Pro Cys Glu Val Ser Val Ile Gln Arg Glu 230 235 Ile Gly Glu Pro Thr Val Gly Ser Leu Cys Cys Ser Ala Trp Gly Met 250 His Trp Val Pro Glu Ala Leu Ser Ala Ser Leu Gly Leu Ser Pro Met 265 Gly Arg His His Arg Asp Pro Arg Ser Val Ala Leu Arg Ala Pro Pro 280 285 Ser Ser Cys Gly Arg Pro Arg Leu Gly Leu Trp Ala Val Leu Pro Gly 295 300

<210> 1081 <211> 139 <212>Amino acid <213> Homo sapiens

<400> 1081 Gln Gly Leu Ala Ala Glu Phe Leu Gln Val Pro Ala Val Thr Arg Ala 10 Tyr Thr Ala Ala Cys Val Leu Thr Thr Ala Ala Val Gln Leu Glu Leu 25 Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val Phe Arg Lys 40 Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly Phe Ser Leu Leu 55 Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile Ala Val Gly His 70 Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly Lys 90 Arg Leu Leu Gln Thr Pro Gly Phe Leu Gly Leu Gln Ser Ser Lys Ala 100 105 Pro Ala Gly Ser Ser Leu Thr Ile Trp Thr Gln Gln Ser Gln Gly Gly

115 120 125
Pro Gly Thr Ala Gly Glu Leu Ala Ala Pro Ser
130 135 139

<210> 1082 <211> 1105 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(1105) <223> X = any amino acid or stop code

<400> 1082 Glu Lys Asn Ala Leu Glu Pro Thr Val Tyr Phe Gly Met Gly Val Xaa 10 5 Ala Pro Gln Val Pro Arg Phe Gln Gln Arg Ile Thr Gly Tyr Gln Tyr 25 Tyr Leu Gln Leu Arg Lys Asp Ile Trp Glu Glu Gly Ile Pro Cys Thr 40 Leu Glu Gln Pro Ile His Leu Ala Gly Leu Ala Val Gln Ala Ile Phe 55 60 Gly Asp Phe Asp Gln Tyr Glu Ser Gln Asp Phe Leu Gln Lys Phe Ala 70 75 Leu Phe Pro Val Gly Trp Leu Gln Asp Glu Lys Val Leu Glu Glu Ala 90 85 Thr Gln Lys Val Ala Leu Leu His Gln Lys Tyr Arg Gly Leu Thr Ala 105 Pro Asp Ala Glu Met Leu Tyr Met Gln Glu Val Glu Arg Met Asp Gly 120 Tyr Gly Glu Glu Ser Tyr Pro Ala Lys Asp Ser Gln Gly Ser Asp Ile 135 Ser Ile Gly Ala Cys Leu Glu Gly Ile Phe Val Lys His Lys Asn Gly 150 155 Arg His Pro Val Val Phe Arg Trp His Asp Ile Ala Asn Met Ser His 170 Asn Lys Ser Phe Phe Ala Leu Glu Leu Ala Asn Lys Glu Glu Thr Ile 180 185 Gln Phe Gln Thr Glu Asp Met Glu Thr Ala Lys Tyr Ile Trp Arg Leu 200 . Cys Val Ala Arg His Lys Phe Tyr Arg Leu Asn Gln Cys Asn Leu Gln 215 Thr Gln Thr Val Thr Val Asn Pro Ile Arg Arg Arg Ser Ser Ser Arg 230 235 Met Ser Leu Pro Lys Pro Gln Pro Tyr Val Met Pro Pro Pro Pro Gln 245 250 Leu His Tyr Asn Gly His Tyr Thr Glu Pro Tyr Ala Ser Ser Gln Asp 260 265 Asn Leu Phe Val Pro Asn Gln Glu Gly Tyr Tyr Gly Gln Phe Gln Thr 280 Ser Leu Asn Arg Ala Gln Ile Asp Phe Asn Gly Arg Ile Arg Asn Ala 295 Ser Val Tyr Ser Ala His Ser Thr Asn Ser Leu Asn Asn Pro Gln Pro 310 315 Tyr Leu Gln Pro Ser Pro Met Ser Ser Asn Pro Ser Ile Thr Gly Ser 325 330 Asp Val Met Arg Pro Asp Tyr Leu Pro Ser His Arg His Ser Ala Val 345

```
Ile Pro Pro Ser Tyr Arg Pro Thr Pro Asp Tyr Glu Thr Val Met Lys
                           360
Gln Leu Asn Arg Gly Leu Val His Ala Glu Arg Gln Ser His Ser Leu
                       375
                                         380
Arg Asn Leu Asn Ile Gly Ser Ser Tyr Ala Tyr Ser Arg Pro Ala Ala
                   390
                                      395
Leu Val Tyr Ser Gln Pro Glu Ile Arg Glu His Ala Gln Leu Pro Ser
               405
                                 410
Pro Ala Ala Ala His Cys Pro Phe Ser Leu Ser Tyr Ser Phe His Ser
           420
                  425
Pro Ser Pro Tyr Pro Tyr Pro Ala Glu Arg Arg Pro Val Val Gly Ala
                           440
                                              445
Val Ser Val Pro Glu Leu Thr Asn Ala Gln Leu Gln Ala Gln Asp Tyr
                       455
                                          460
Pro Ser Pro Asn Ile Met Arg Thr Gln Val Tyr Arg Pro Pro Pro Pro
                   470
                                      475
Tyr Pro Pro Pro Arg Pro Ala Asn Ser Thr Pro Asp Leu Ser Arg His
               485
                                 490
Leu Tyr Ile Ser Ser Ser Asn Pro Asp Leu Ile Thr Arg Arg Val His
           500
                              505
His Ser Val Gln Thr Phe Gln Glu Asp Ser Leu Pro Val Ala His Ser
                           520
Leu Gln Glu Val Ser Glu Pro Leu Thr Ala Ala Arg His Ala Gln Leu
                       535
                                          540
His Lys Arg Asn Ser Ile Glu Val Ala Gly Leu Ser His Gly Leu Glu
                   550
                                      555
Gly Leu Arg Leu Lys Glu Arg Thr Leu Ser Ala Ser Ala Ala Glu Val
               565
                                  570
Ala Pro Arg Ala Val Ser Val Gly Ser Gln Pro Ser Val Phe Thr Glu
                               585
Arg Thr Gln Arg Glu Gly Pro Glu Glu Ala Glu Gly Leu Arg Tyr Gly
                          600
His Lys Lys Ser Leu Ser Asp Ala Thr Met Leu Ile His Ser Ser Glu
                       615
                                         620
Glu Glu Glu Asp Glu Asp Phe Glu Glu Glu Ser Gly Ala Arg Ala Pro
                   630
                                      635
Pro Ala Arg Ala Arg Glu Pro Arg Pro Gly Leu Ala Gln Asp Pro Pro
               645
                                  650
Gly Cys Pro Arg Val Leu Leu Ala Gly Pro Leu His Ile Leu Glu Pro
                              665
Lys Ala His Val Pro Asp Ala Glu Lys Arg Met Met Asp Ser Ser Pro
                          680
Val Arg Thr Thr Ala Glu Ala Gln Arg Pro Trp Arg Asp Gly Leu Leu
                      695
                                          700
Met Pro Ser Met Ser Glu Ser Asp Leu Thr Thr Ser Gly Arg Tyr Arg
                  710
                                     715
Ala Arg Arg Asp Ser Leu Lys Lys Arg Pro Val Ser Asp Leu Leu Ser
              725
                                 730
Gly Lys Lys Asn Ile Val Glu Gly Leu Pro Pro Leu Gly Gly Met Lys
                              745
Lys Thr Arg Val Asp Ala Lys Lys Ile Gly Pro Leu Lys Leu Ala Ala
                          760
Leu Asn Gly Leu Ser Leu Ser Arg Val Pro Leu Pro Asp Glu Gly Lys
                      775
                                         780
Glu Val Ala Thr Arg Ala Thr Asn Asp Glu Arg Cys Lys Ile Leu Glu
                                     795
Gln Arg Leu Glu Gln Gly Met Val Phe Thr Glu Tyr Glu Arg Ile Leu
              805
                                 810
Lys Lys Arg Leu Val Asp Gly Glu Cys Ser Thr Ala Arg Leu Pro Glu
                              825
Asn Ala Glu Arg Asn Arg Phe Gln Asp Val Leu Pro Tyr Asp Asp Val
                         840
Arg Val Glu Leu Val Pro Thr Lys Glu Asn Asn Thr Gly Tyr Ile Asn
                      855
                                         860
```

Ala Ser His Ile Lys Val Ser Val Ser Gly Ile Glu Trp Asp Tyr Ile 870 875 Ala Thr Gln Gly Pro Leu Gln Asn Thr Cys Gln Asp Phe Trp Gln Met 885 890 Val Trp Glu Gln Gly Ile Ala Ile Ile Ala Met Val Thr Ala Glu Glu 905 Glu Gly Gly Arg Glu Lys Ser Phe Arg Tyr Trp Pro Arg Leu Gly Ser 920 Arg His Asn Thr Val Thr Tyr Gly Arg Phe Lys Ile Thr Thr Arg Phe 935 940 Arg Thr Asp Ser Gly Cys Tyr Ala Thr Thr Gly Leu Lys Met Lys His 950 955 Leu Leu Thr Gly Gln Glu Arg Thr Val Trp His Leu Gln Tyr Thr Asp 965 970 Trp Pro Glu His Gly Cys Pro Glu Asp Leu Lys Gly Phe Leu Ser Tyr 985 Leu Glu Glu Ile Gln Ser Val Arg Arg His Thr Asn Ser Thr Ser Asp 1000 Pro Gln Ser Pro Asn Pro Pro Leu Leu Val His Cys Ser Ala Gly Val 1015 1020 Gly Arg Thr Gly Val Val Ile Leu Ser Glu Ile Met Ile Ala Cys Leu 1030 1035 . Glu His Asn Glu Val Leu Asp Ile Pro Arg Val Leu Asp Met Leu Arg 1045 1050 1055 Gln Gln Arg Met Met Leu Val Gln Thr Leu Cys Gln Tyr Thr Phe Val 1065 1070 Tyr Arg Val Leu Ile Gln Val Pro Glu Lys Ala Pro Arg Leu Ile Leu 1080 1085 Ser Ser Pro Gln Phe Pro Tyr Gly Ala Gln Ser Cys Glu Ala Phe Thr 1095 1100 Ala

1105

<210> 1083 <211> 99 <212>Amino acid <213> Homo sapiens

99

<220>. <221> misc_feature <222> (1)...(99)

<223> X = any amino acid or stop code

<400> 1083 Arg Lys Lys Gln Lys Leu Ala Glu Glu Xaa Val Glu Leu Ser Lys Leu 10 Ala Asp Leu Lys Asp Ala Glu Ala Val Gln Lys Phe Phe Leu Glu Glu 25 Ile Xaa Leu Gly Glu Glu Ile Leu Ala Lys Gly Val Asp His Leu Thr 40 Asn Pro Ser Ala Val Cys Gly Gln Pro Gln Trp Leu Leu Gln Val Leu Gln Gln Thr Leu Pro Leu Pro Val Ile Gln Met Leu Leu Thr Lys Pro 70 75 Leu Pro Val Asn Gln Arg Leu Val Ser Ala Gly Ser Leu Ala Lys Asp 90 Asp Val Glu

603

<210 1084
<211 206
<212 2mino acid
<213 Homo sapiens
<220>
<221> misc_feature
<222 (1) ... (206)
<223 X = any amino acid or stop code</pre>

<400> 1084 Ser Phe Cys Leu His Glu Phe Gly Trp Leu Gly Ser Ser Pro Gln Ser Asp His Pro Val Pro Ala Leu Leu Gly Leu Gly Ala Phe Val His His Ser Leu Leu Gln Val His Ser Ser Pro Gly Ala Gly Pro Val Ser Phe Leu Phe Leu Gly Glu Ser Cys Ser Pro Val Asp Glu Pro Arg Cys Val 55 Pro Ser Cys Ala Phe Gly Phe Leu Ser Cys Phe Pro Leu Leu Asn Ser 70 75 Ala Ala Leu Glu Arg Gly Leu Phe Phe Phe Val Val Phe Phe Phe Leu 90 Glu Ser Gly Ser Cys Gln Val Ala Arg Ala Gly Val Arg Asp Arg Asp 105 Arg Gly Ser Leu Gln Pro Pro Pro Pro Gly Leu Lys Gln Phe Cys Leu 120 125 Ser Leu Pro Ser Arg Trp Asp His Arg His Pro Pro Pro Leu Arg Val 135 140 Pro Xaa Phe Val Phe Val Phe Leu Val Glu Leu Gly Phe His His Val 150 155 Ala Gln Ala Gly Leu Lys Leu Leu Thr Leu Ser Asp Pro Pro Ala Pro 165 170 175 Ala Ser His Ser Ala Gly Ile Thr Gly Val Ser Gln Arg Asp Gln Pro 185 180 Val Leu Phe Leu Arg Trp Ala Ser Cys Ser Glu Leu Val Gly 200

<210> 1085 <211> 99 <212>Amino acid <213> Homo sapiens

Cys Gln Gln Leu Val Arg Arg Gly Phe Thr Val Leu Ala Arg Met Val 85 90 95 Ser Ile Ser 99

<210> 1086 <211> 53 <212>Amino acid <213> Homo sapiens

<210> 1087 <211> 250 <212>Amino acid <213> Homo sapiens

<400> 1087 Leu Asn Pro Trp Lys Asn Ala Leu Gln Asp Phe Cys Leu Pro Phe Leu Arg Ile Thr Ser Leu Leu Gln His His Leu Phe Gly Glu Asp Leu Pro 20 25 Ser Cys Gln Glu Glu Glu Phe Ser Val Leu Ala Ser Cys Leu Gly 40 Leu Leu Pro Thr Phe Tyr Gln Thr Glu His Pro Phe Ile Ser Ala Ser 55 Cys Leu Asp Trp Pro Val Pro Ala Phe Asp Ile Ile Thr His Trp Cys 70 75 Phe Glu Ile Lys Ser Phe Thr Glu Arg His Ala Glu Gln Gly Lys Ala 85 90 Leu Leu Ile Gln Glu Ser Lys Trp Lys Leu Pro His Leu Leu Gln Leu 100 105 Pro Glu Asn Tyr Asn Thr Ile Phe Gln Tyr Tyr His Arg Lys Thr Cys 120 Ser Val Cys Thr Lys Val Pro Lys Asp Pro Ala Val Cys Leu Val Cys 135 140 Gly Thr Phe Val Cys Leu Lys Gly Leu Cys Cys Lys Gln Gln Ser Tyr 150 155 Cys Glu Cys Val Leu His Ser Gln Asn Cys Gly Ala Gly Thr Gly Ile 165 170 Phe Leu Leu Ile Asn Ala Ser Val Ile Ile Ile Ile Arg Gly His Arg 180 185 Phe Cys Leu Trp Gly Ser Val Tyr Leu Asp Ala His Gly Glu Glu Asp 200 Arg Asp Leu Arg Arg Gly Lys Pro Leu Tyr Ile Cys Lys Glu Arg Tyr 210 215

Lys Val Leu Glu Gln Gln Trp Ile Ser His Thr Phe Asp His Ile Asn 225 230 235 240 Lys Arg Trp Gly Pro His Tyr Asn Gly Leu 245 250

<210> 1088 <211> 455 <212>Amino acid <213> Homo sapiens

<400> 1088 Lys Gly Gln Leu Val Asn Leu Leu Pro Pro Glu Asn Phe Pro Trp Cys 5 10 Gly Gly Ser Gln Gly Pro Arg Met Leu Arg Thr Cys Tyr Val Leu Cys 2.0 25 Ser Gln Ala Gly Pro Arg Ser Arg Gly Trp Gln Ser Leu Ser Phe Asp 4.0 Gly Gly Ala Phe His Leu Lys Gly Thr Gly Glu Leu Thr Arg Ala Leu 55 Leu Val Leu Arg Leu Cys Ala Trp Pro Pro Leu Val Thr His Gly Leu 70 75 Leu Leu Gln Ala Trp Ser Arg Arg Leu Leu Gly Ser Arg Leu Ser Gly 85 90 Ala Phe Leu Arg Ala Ser Val Tyr Gly Gln Phe Val Ala Gly Glu Thr 105 Ala Glu Glu Val Lys Gly Cys Val Gln Gln Leu Arg Thr Leu Ser Leu 120 Arg Pro Leu Leu Ala Val Pro Thr Glu Glu Glu Pro Asp Ser Ala Ala 135 140 Lys Ser Gly Glu Ala Trp Tyr Glu Gly Asn Leu Gly Ala Met Leu Arg 150 155 Cys Val Asp Leu Ser Arg Gly Leu Leu Glu Pro Pro Ser Leu Ala Glu 170 Ala Ser Leu Met Gln Leu Lys Val Thr Ala Leu Thr Ser Thr Arg Leu 185 Cys Lys Glu Leu Ala Ser Trp Val Arg Arg Pro Gly Ala Ser Leu Glu 200 Leu Ser Pro Glu Arg Leu Ala Glu Ala Met Asp Ser Gly Gln Asn Leu 215 220 Gln Val Ser Cys Leu Asn Ala Glu Gln Asn Gln His Leu Arg Ala Ser 230 235 Leu Ser Arg Leu His Arg Val Ala Gln Tyr Ala Arg Ala Gln His Val 250 Arg Leu Leu Val Asp Ala Glu Tyr Thr Ser Leu Asn Pro Ala Leu Ser 260 265 Leu Leu Val Ala Ala Leu Ala Val Arg Trp Asn Ser Pro Gly Glu Gly 280 Gly Pro Trp Val Trp Asn Thr Tyr Gln Ala Cys Leu Lys Asp Thr Phe 295 Glu Arg Leu Gly Arg Asp Ala Glu Ala Ala His Arg Ala Gly Leu Ala 315 Phe Gly Val Lys Leu Val Arg Gly Ala Tyr Leu Asp Lys Glu Arg Ala 330 Val Ala Gln Leu His Gly Met Glu Asp Pro Pro Thr Gln Ala Asp Tyr 345 Glu Ala Thr Ser Gln Ser Tyr Ser Arg Cys Leu Glu Leu Met Leu Thr 360 365 His Val Ala Arg His Gly Pro Met Cys His Leu Met Val Ala Ser His 375

```
Asn Glu Glu Ser Val Arg Gln Ala Thr Lys Gly Gln Ala Gly Tyr Val
                390
                                 395
Val Tyr Lys Ser Ile Pro Tyr Gly Ser Leu Glu Glu Val Ile Pro Tyr
             405
                              410
                                               415
Leu Ile Arg Arg Ala Gln Glu Asn Arg Ser Val Leu Gln Gly Ala Arg
         420
                          425
Arg Glu Gln Glu Leu Leu Ser Gln Lys Leu Trp Arg Arg Leu Leu Pro
      435 440
                                        445
Gly Cys Arg Arg Ile Pro His
                   455
```

<210> 1089 <211> 243 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(243) <223> X = any amino acid or stop code

<400> 1089 Val Val Glu Phe Gly Glu Met Ser Thr Ala Arg Ala Pro Glu Gly Leu 1 1.0 Arg Trp Phe Gln Leu Tyr Val His Pro Asp Leu Gln Leu Asn Lys Gln 25 Leu Ile Gln Arg Val Glu Ser Leu Gly Phe Lys Ala Leu Val Ile Thr 40 Leu Asp Thr Pro Val Cys Gly Asn Arg Arg His Asp Ile Arg Asn Gln 55 Leu Arg Arg Asn Leu Thr Leu Thr Asp Leu Gln Ser Pro Lys Lys Gly 70 75 Asn Ala Ile Pro Tyr Phe Gln Met Thr Pro Ile Ser Thr Ser Leu Cys 85 90 Trp Asn Asp Leu Ser Trp Phe Gln Ser Ile Thr Arg Leu Pro Ile Ile 105 Leu Lys Gly Ile Leu Thr Lys Glu Asp Ala Glu Leu Ala Val Lys His 120 Asn Val Gln Gly Ile Ile Val Ser Asn His Gly Gly Arg Gln Leu Asp 135 Glu Val Leu Ala Ser Ile Asp Ala Leu Thr Glu Val Gly Ala Ala Glu 150 155 Xaa Gly Asn Met Lys Tyr Tyr Leu Asp Ala Gly Val Arg Thr Gly Asn 165 170 Asp Val Gln Lys Ala Leu Ala Leu Gly Ala Lys Cys Ile Phe Leu Gly 180 185 Arg Pro Ile Leu Trp Gly Leu Ala Cys Lys Gly Glu His Gly Val Lys 200 Glu Val Leu Asn Ile Leu Thr Asn Glu Phe His Thr Ser Met Ala Leu 215 220 Thr Gly Cys Arg Ser Val Ala Glu Ile Asn Arg Asn Leu Val Gln Phe 230 235 Ser Arg Leu 243

<210> 1090 <211> 90

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)...(90)

<223> X = any amino acid or stop code

<400> 1090

Phe Phe Leu Arg Trp Ser Phe Thr Leu Leu Pro Arg Leu Glu Cys Gln

1 1 5 10 10 15

Trp Leu Asn Leu Gly Ser Leu Gln Pro Pro Pro Pro Gly Phe Lys Xaa
20 25

Ser Ser Cys Leu Arg Leu Leu Ser Ser Trp Gly Leu Gln Val Pro Thr
35 40 45

Ser Met Leu Gly Xaa Phe Phe Cys Ile Phe Ser Arg Glu Gly Ile Ser
50 55

Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro Lys Val Ile His Leu Pro
65 75

Arg Pro Pro Arg Val Leu Arg Leu Gln Alag

<210> 1091 <211> 259

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(259)

<223> X = any amino acid or stop code

<400> 1091

Leu Leu Cys Phe Val His Thr Ala Leu Gln Ser Phe Gln Gly Glu Leu 10 Tyr Glu Pro His Val Val Ile Ala Ile Val Val Phe Leu Val Lys Leu 20 Gly Ile Cys Lys Xaa Arg Ala Ser Trp Arg Lys Lys Val Thr Leu Val 40 Val Lys Xaa Ser Leu Lys Ile Cys Phe Thr Lys Tyr Gly Ser Cys Tyr 55 His Pro Gly Glu Lys Ser Ser Ser Trp Leu Phe Asn Xaa Arg Met Val 75 Asn Asp Cys Leu Ala Thr Ser Cys Ser Asn Arg Ser Phe Val Ile Gln 90 Gln Ile Pro Ser Ser Asn Leu Phe Met Val Val Val Asp Ser Ser Cys 105 Leu Cys Glu Ser Val Ala Pro Ile Thr Met Ala Pro Ile Glu Ile Arg 120 Tyr Ile Leu Leu Cys Ala Gly Pro Leu Thr Thr Thr Glu Thr Ser Lys 135 140 Gly Tyr Gln Trp Xaa Gly Asn Leu Gly Glu Lys Tyr Xaa Arg Arg Lys 150 155 Ile Thr Ser Phe Pro Leu Leu Glu Arg Glu Ser Ser Xaa Glu Ser Cys 165 170 His Cys Gln Ile Leu Thr Ser Glu Met Gln Ser Arg Lys Lys Gln Ser

180

Leu Glu Thr Cyck Leu Asn Tyr Ser Gln His Asn Glu Ser Leu Lys Cys
195

Glu Arg Leu Lys Ala Gln Lys 1le Arg Arg Arg Pro Glu Ser Cys His
210

215

Cly Phe His Pro Glu Glu Asn Ala Arg Glu Cys Gly Gly Ala Pro Ser
225

230

230

230

245

Leu Gln Ala Gln Thr Val Leu Leu Leu Leu Pro Leu Leu Met Leu
259

Phe Ser Arg
259

<210> 1092 <211> 117 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(117) <223> X = any amino acid or stop code

<400> 1092 Val Pro Ser Pro Thr His Asp Pro Lys Pro Ala Glu Ala Pro Met Pro 5 10 Ala Xaa Pro Ala Pro Pro Gly Pro Ala Ser Pro Gly Gly Ala Leu Glu 20 25 Pro Pro Ala Ala Ala Arg Ala Gly Gly Ser Pro Thr Ala Val Arg Ser 35 40 Ile Leu Thr Lys Glu Arg Arg Pro Glu Gly Gly Tyr Lys Ala Val Trp 55 Phe Gly Glu Asp Ile Gly Thr Glu Ala Asp Val Val Leu Asn Ala 70 Pro Thr Leu Asp Val Asp Gly Ala Ser Asp Ser Gly Ser Gly Asp Glu 85 90 Gly Glu Gly Ala Gly Arg Gly Gly Pro Tyr Asp Ala Pro Gly Gly 100 105 Asp Asp Ser Tvr Ile 115 117

<210> 1093 <211> 763 <212>Amino acid <213> Homo sapiens

```
Leu Leu Phe Ser Ala Leu Ile Thr Arg Ile Phe Gly Val Lys Arg Ala
                  70
Lys Asp Glu His Ser Lys Thr Asn Arg Met Thr Gly Arg Glu Phe Phe
              85
                                 90
Ser Arg Phe Pro Glu Leu Tyr Pro Phe Leu Leu Lys Gln Leu Glu Thr
                            105
          100
Val Ala Asn Thr Val Asp Ser Asp Met Gly Glu Pro Asn Arg His Pro
      115
                        120
Ser Met Phe Leu Leu Leu Val Leu Glu Arg Leu Tyr Ala Ser Pro
                    135
                                       140
Met Asp Gly Thr Ser Ser Ala Leu Ser Met Gly Pro Phe Val Pro Phe
                 150
                                   155
Ile Met Arg Cys Gly His Ser Pro Val Tyr His Ser Arg Glu Met Ala
             165
                                170
Ala Arg Ala Leu Val Pro Phe Val Met Ile Asp His Ile Pro Asn Thr
          180
                            185
Ile Arg Thr Leu Leu Ser Thr Leu Pro Ser Cys Thr Asp Gln Cys Phe
                        200
                                          205
Arg Gln Asn His Ile His Gly Thr Leu Leu Gln Val Phe His Leu Val
                     215
                              220
Gln Ala Tyr Ser Asp Ser Lys His Gly Thr Asn Ser Asp Phe Gln His
                                  235
                 230
Glu Leu Thr Asp Ile Thr Val Cys Thr Lys Ala Lys Leu Trp Leu Ala
             245
                               250
Lys Arg Gln Asn Pro Cys Leu Val Thr Arg Ala Val Tyr Ile Asp Ile
         260
                            265
Leu Phe Leu Leu Thr Cys Cys Leu Asn Arg Ser Ala Lys Asp Asn Gln
    275
                      280
                                          285
Pro Val Leu Glu Ser Leu Gly Phe Trp Glu Glu Val Arg Gly Ile Ile
  290 295 300
Ser Gly Ser Glu Leu Ile Thr Gly Phe Pro Trp Ala Phe Lys Val Pro
        310 315
Gly Leu Pro Gln Tyr Leu Gln Ser Leu Thr Arg Leu Ala Ile Ala Ala
             325 330
Val Trp Ala Ala Ala Lys Ser Gly Glu Arg Glu Thr Asn Val Pro
         340
                 345 350
Ile Ser Phe Ser Gln Leu Leu Glu Ser Ala Phe Pro Glu Val Arg Ser
    355
              360 365
Leu Thr Leu Glu Ala Leu Leu Glu Lys Phe Leu Ala Ala Ala Ser Gly
                    375
                                      380
Leu Gly Glu Lys Gly Val Pro Pro Leu Leu Cys Asn Met Gly Glu Lys
                 390
                                   395
Phe Leu Leu Leu Ala Met Lys Glu Asn His Pro Glu Cys Phe Cys Lys
                               410
Ile Leu Lys Ile Leu His Cys Met Asp Pro Gly Glu Trp Leu Pro Gln
                            425
Thr Glu His Cys Val His Leu Thr Pro Lys Glu Phe Leu Ile Trp Thr
                        440
Met Asp Ile Ala Ser Asn Glu Arg Ser Glu Ile Gln Ser Val Ala Leu
                    455
                                       460
Arg Leu Ala Ser Lys Val Ile Ser His His Met Gln Thr Cys Val Glu
                 470
                                   475
Asn Arg Glu Leu Ile Ala Ala Glu Leu Lys Gln Trp Val Gln Leu Val
             485
                               490
Ile Leu Ser Cys Glu Asp His Leu Pro Thr Glu Ser Arg Leu Ala Val
          500
                            505
Val Glu Val Leu Thr Ser Thr Thr Pro Leu Phe Leu Thr Asn Pro His
                        520
Pro Ile Leu Glu Leu Gln Asp Thr Leu Ala Leu Trp Lys Cys Val Leu
                     535
                                       540
Thr Leu Leu Gln Ser Glu Glu Gln Ala Val Arg Asp Ala Ala Thr Glu
                 550
                                  555
Thr Val Thr Thr Ala Met Ser Gln Glu Asn Thr Cys Gln Ser Thr Glu
              565
                               570
```

Phe Ala Phe Cys Gln Val Asp Ala Ser Ile Ala Leu Ala Leu Ala Leu 585 Ala Val Leu Cys Asp Leu Leu Gln Gln Trp Asp Gln Leu Ala Pro Gly 600 Leu Pro Ile Leu Leu Gly Trp Leu Leu Gly Glu Ser Asp Asp Leu Val 615 620 Ala Cys Val Glu Ser Met His Gln Val Glu Glu Asp Tyr Leu Phe Glu 630 635 Lys Ala Glu Val Asn Phe Trp Ala Glu Thr Leu Ile Phe Val Lys Tyr - ' 650 645 Leu Cys Lys His Leu Phe Cys Leu Leu Ser Lys Ser Gly Trp Arg Pro 665 Pro Ser Pro Glu Met Leu Cys His Leu Gln Arg Met Val Ser Glu Gln 680 Cys His Leu Leu Ser Gln Phe Phe Arg Glu Leu Pro Pro Ala Ala Glu 695 700 Phe Val Lys Thr Val Glu Phe Thr Arg Leu Arg Ile Gln Glu Glu Arg 710 715 Thr Leu Ala Cys Leu Arg Leu Leu Ala Phe Leu Glu Gly Lys Glu Gly 725 730 Glu Asp Thr Leu Val Leu Ser Val Trp Asp Ser Tyr Ala Glu Ser Arg 745 Gln Leu Thr Leu Pro Arg Thr Glu Ala Ala Cys

760

<210> 1094 <211> 413 <212>Amino acid <213> Homo sapiens

<400> 1094 His Ala Phe Arg Pro Ile Ala Leu Gln Arg Gly Val Ser Phe Arg Gly 10 Cys Ser Asn Gln Tyr Ala Glu Ser Arg Arg Leu Gln Gly Glu Ser Gly 25 Ser Arg Ala Phe Ala His Leu Met Glu Ser Leu Leu Gln His Leu Asp 40 Arg Phe Ser Glu Leu Leu Ala Val Ser Ser Thr Thr Tyr Val Ser Thr 55 Trp Asp Pro Ala Thr Val Arg Arg Ala Leu Gln Trp Ala Arg Tyr Leu 70 75 Arg His Ile His Arg Arg Phe Gly Arg His Gly Pro Ile Arg Thr Ala 90 Leu Glu Arg Arg Leu His Asn Gln Trp Arg Gln Glu Gly Gly Phe Gly 105 Arg Gly Pro Val Pro Gly Leu Ala Asn Phe Gln Ala Leu Gly His Cys 120 Asp Val Leu Leu Ser Leu Arg Leu Leu Glu Asn Arg Ala Leu Gly Asp 135 140 Ala Ala Arg Tyr His Leu Val Gln Gln Leu Phe Pro Gly Pro Gly Val 150 155 Arg Asp Ala Asp Glu Glu Thr Leu Gln Glu Ser Leu Ala Arg Leu Ala 165 170 Arg Arg Arg Ser Ala Val His Met Leu Arg Phe Asn Gly Tyr Arg Glu 180 185 Asn Pro Asn Leu Gln Glu Asp Ser Leu Met Lys Thr Gln Ala Glu Leu 200 Leu Leu Glu Arg Leu Gln Glu Val Gly Lys Ala Glu Ala Glu Arg Pro 215

Ala Arg Phe Leu Ser Ser Leu Trp Glu Arg Leu Pro Gln Asn Asn Phe 230 235 Leu Lys Val Ile Ala Val Ala Leu Leu Gln Pro Pro Leu Ser Arg Arg 250 Pro Gln Glu Glu Leu Glu Pro Gly Ile His Lys Ser Pro Gly Glu Gly 265 Ser Gln Val Leu Val His Trp Leu Leu Gly Asn Ser Glu Val Phe Ala 280 Ala Phe Cys Arg Ala Leu Pro Ala Gly Leu Leu Thr Leu Val Thr Ser 295 300 Arg His Pro Ala Leu Ser Pro Val Tyr Leu Gly Leu Leu Thr Asp Trp 310 315 Gly Gln Arg Leu His Tyr Asp Leu Gln Lys Gly Ile Trp Val Gly Thr 325 330 Glu Ser Gln Asp Val Pro Trp Glu Glu Leu His Asn Arg Phe Gln Ser 345 350 Leu Cys Gln Ala Pro Pro Pro Leu Lys Asp Lys Val Leu Thr Ala Leu 360 365 Glu Thr Cys Lys Ala Gln Asp Gly Asp Phe Glu Glu Pro Gly Leu Ser 375 380 Ile Trp Thr Asp Leu Leu Leu Ala Leu Arg Ser Gly Ala Phe Arg Lys 395 390 Arg Gln Val Leu Gly Leu Ser Ala Gly Leu Ser Ser Val 405 410

<210> 1095 <211> 344 <212>Amino acid <213> Homo sapiens

<220>
<221> misc feature
<222> (1)...(344)
<223> X = any amino acid or stop code

<400> 1095 Ser His Leu Ile Gln His Gln Arg Ile His Thr Xaa Glu Xaa Ala His Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln Thr Ser Cys Leu Ile 25 Gln His His Lys Met His Arg Lys Glu Lys Ser Tyr Glu Cys Asn Glu 40 Tyr Glu Gly Ser Phe Ser His Ser Ser Asp Leu Ile Leu Gln Gln Glu 55 Val Leu Thr Arg Gln Lys Ala Phe Asp Cys Asp Val Trp Glu Lys Asn Ser Ser Gln Arg Ala His Leu Val Gln His Gln Ser Ile His Thr Lys 90 Glu Lys Pro His Glu Cys Asn Glu Asp Gly Lys Ile Phe Asn Gln Ile 105 Gln Ala Leu Ile Gln His Leu Arg Val His Thr Arg Glu Lys Tyr Val 120 Cys Thr Ala Cys Gly Lys Ala Phe Ser His Ser Ser Ala Ile Ala Gln 135 140 His Gln Ile Ile His Thr Arg Glu Lys Pro Ser Glu Cys Asp Glu Xaa 150 155 Arg Lys Gly Ile Ser Val Lys Leu Leu Ile Asp Ser Cys Arg Ile Tyr 170 Thr Ser Glu Lys Ser Tyr Lys Cys Ile Glu Cys Gly Lys Phe Phe Met

```
185
Leu Leu Val Phe Ser Tyr Leu Ser His Ile Trp Arg Ile His Met Gly
     195 200
Ile Lys Phe His Cys Cys Asn Glu Cys Glu Lys Ala Ile Ser Gln Arg
                   215
Asn Tyr Leu Val Xaa Tyr Gln Ile His Ala Met Gln Lys Asp Tyr Lys
               230
                     235
Cys Asn Glu Ala Cys Met Cys Val Arg Arg Phe Ser His Asn Pro Thr
            245
                             250 255
Leu Ile Gln His Gln Arg Ile Tyr Thr Xaa Glu Asn Leu Phe Gly Cys
         260
                         265 270
Ser Lys Cys Gly Arg Ser Phe Asn Arg Ser Leu Thr Ser Leu Cys His
      275
            280
Ile Arg Ile Ser Ile Arg Arg Gln Glu Phe Asp Val Thr Gln Met Glu
                   295
                                   300
Lys Leu Asp Thr Thr Phe Gln Ala Ser Thr Gln His Arg Asn Asn Gly
                310
                              315
Glu Lys Ile Val Asp Tyr Leu Phe Met Lys Leu Leu Ile His Ser Pro
             325
                             330
Asn Leu Phe His Cys Thr Lys Ile
         340
```

<210> 1096 <211> 76

<212>Amino acid <213> Homo sapiens

<210 > 1097

<211 > 1462
<212 > Amino acid
<213 > Homo sapiens
<220 >
<221 > misc_feature
<222 > (1) ... (1462)
<223 > X = any amino acid or stop code

 $^{\circ}$ 4400> 1097 Met Ala Tyr Ser Trp Gln Thr Asp Pro Asn Pro Asn Glu Ser His Glu I $^{\circ}$ 15 10ys Gln Tyr Glu His Gln Glu Phe Leu Phe Val Asn Gln Pro His Ser 20 $^{\circ}$ 25 $^{\circ}$ 30

Ser Ser Gln Val Ser Leu Gly Phe Asp Gln Ile Val Asp Glu Ile Ser 40 Gly Lys Ile Pro His Tyr Glu Ser Glu Ile Asp Glu Asn Thr Phe Phe 55 Val Pro Thr Ala Pro Lys Trp Asp Ser Thr Gly His Ser Leu Asn Glu 70 Ala His Gln Ile Ser Leu Asn Glu Phe Thr Ser Lys Ser Arg Glu Leu Ser Trp His Gln Val Ser Lys Ala Pro Ala Ile Gly Phe Ser Pro Ser 105 Val Leu Pro Lys Pro Gln Asn Thr Asn Lys Glu Cys Ser Trp Gly Ser 120 Pro Ile Gly Lys His His Gly Ala Asp Asp Ser Arg Phe Ser Ile Leu 140 135 Ala Pro Ser Phe Thr Ser Leu Asp Lys Ile Asn Leu Glu Lys Glu Leu 150 155 Glu Asn Glu Asn His Asn Tyr His Ile Gly Phe Glu Ser Ser Ile Pro 165 170 Pro Thr Asn Ser Ser Phe Ser Ser Asp Phe Met Pro Lys Glu Glu Asn 185 Lys Arg Ser Gly His Val Asn Ile Val Glu Pro Ser Leu Met Leu Leu 200 195 Lys Gly Ser Leu Gln Pro Gly Met Trp Glu Ser Thr Trp Gln Lys Asn 215 220 Ile Glu Ser Ile Gly Cys Ser Ile Gln Leu Val Glu Val Pro Gln Ser 230 235 Ser Asn Thr Ser Leu Ala Ser Phe Cys Asn Lys Val Lys Lys Ile Arg 245 250 Glu Arg Tyr His Ala Ala Asp Val Asn Phe Asn Ser Gly Lys Ile Trp 260 265 Ser Thr Thr Thr Ala Phe Pro Tyr Gln Leu Phe Ser Lys Thr Lys Phe 280 Asn Ile His Ile Phe Ile Asp Asn Ser Thr Gln Pro Leu His Phe Met 295 300 Pro Cys Ala Asn Tyr Leu Val Lys Asp Leu Ile Ala Glu Ile Leu His 310 315 Phe Cys Thr Asn Asp Gln Leu Leu Pro Lys Asp His Ile Leu Ser Val 330 Trp Gly Ser Glu Glu Phe Leu Gln Asn Asp His Cys Leu Gly Ser His 345 350 Lys Met Phe Gln Lys Asp Lys Ser Val Ile Gln Leu His Leu Gln Lys 360 365 Ser Arg Glu Ala Pro Gly Lys Leu Ser Arg Lys His Glu Glu Asp His 375 380 Ser Gln Phe Tyr Leu Asn Gln Leu Leu Glu Phe Met His Ile Trp Lys 390 395 Val Ser Arg Gln Cys Leu Leu Thr Leu Ile Arg Lys Tyr Asp Phe His 405 410 Leu Lys Tyr Leu Leu Lys Thr Gln Glu Asn Val Tyr Asn Ile Ile Glu 420 425 Glu Val Lys Lys Ile Cys Ser Val Leu Gly Cys Val Glu Thr Lys Gln 440 Ile Thr Asp Ala Val Asn Glu Leu Ser Leu Ile Leu Gln Arg Lys Gly 455 Glu Asn Phe Tyr Gln Ser Ser Glu Thr Ser Ala Lys Gly Leu Ile Glu 470 475 Lys Val Thr Thr Glu Leu Ser Thr Ser Ile Tyr Gln Leu Ile Asn Val 490 485 . Tyr Cys Asn Ser Phe Tyr Ala Asp Phe Gln Pro Val Asn Val Pro Arg 505 Cys Thr Ser Tyr Leu Asn Pro Gly Leu Pro Ser His Leu Ser Phe Thr 520 Val Tyr Ala Ala His Asn Ile Pro Glu Thr Trp Val His Arg Ile Asn 535 540

```
Phe Pro Leu Glu Ile Lys Ser Leu Pro Arg Glu Ser Met Leu Thr Val
                  550
                                   555
Lys Leu Phe Gly Ile Ala Cys Ala Thr Asn Asn Ala Asn Leu Leu Ala
              565
                                570
Trp Thr Cys Leu Pro Leu Phe Pro Lys Glu Lys Ser Ile Leu Gly Ser
          580
                            585
Met Leu Phe Ser Met Thr Leu Gln Ser Glu Pro Pro Val Glu Met Ile
                        600
Thr Pro Gly Val Trp Asp Val Ser Gln Pro Ser Pro Val Thr Leu Gln
                     615
Ile Asp Phe Pro Ala Thr Gly Trp Glu Tyr Met Lys Pro Asp Ser Glu
                 630
                                   635
Glu Asn Arg Ser Asn Leu Glu Glu Pro Leu Lys Glu Cys Ile Lys His
                                650
Ile Ala Arg Leu Ser Gln Lys Gln Thr Pro Leu Leu Leu Ser Glu Glu
                            665
Lys Lys Arg Tyr Leu Trp Phe Tyr Arg Phe Tyr Cys Asn Asn Glu Asn
                        680
                                          685
Cys Ser Leu Pro Leu Val Leu Gly Ser Ala Pro Gly Trp Asp Glu Arg
                    695
                                       700
Thr Val Ser Glu Met His Thr Ile Leu Arg Arg Trp Thr Phe Ser Gln
                 710
                         715
Pro Leu Glu Ala Leu Gly Leu Leu Thr Ser Ser Phe Pro Asp Gln Glu
              725
                               730
Ile Arg Lys Val Ala Val Gln Gln Leu Asp Asn Leu Leu Asn Asp Glu
          740
                            745
Leu Leu Glu Tyr Leu Pro Gln Leu Val Gln Ala Val Lys Phe Glu Tro
                        760
                               765
Asn Leu Glu Ser Pro Leu Val Gln Leu Leu Leu His Arg Ser Leu Gln
                    775 780
Ser Ile Gln Val Ala His Arg Leu Tyr Trp Leu Leu Lys Asn Ala Glu
                 790
                                   795
Asn Glu Ala Tyr Phe Lys Ser Trp Tyr Gln Lys Leu Leu Ala Ala Leu
              805
                               810
Gln Phe Cys Ala Gly Lys Ala Leu Asn Asp Glu Phe Ser Lys Glu Gln
                           825
Lys Leu Ile Lys Ile Leu Gly Asp Ile Gly Glu Arg Val Lys Ser Ala
                        840
Ser Asp His Gln Arg Gln Glu Val Leu Lys Lys Glu Ile Gly Arg Leu
                  855
                                       860
Glu Glu Phe Phe Gln Asp Val Asn Thr Cys His Leu Pro Leu Asn Pro
                 870
                                   875
Ala Leu Cys Ile Lys Gly Ile Asp His Asp Ala Cys Ser Tyr Phe Thr
             885
                               890
Ser Asn Ala Leu Pro Leu Lys Ile Thr Phe Ile Asn Ala Asn Leu Met
          900
                            905
Gly Lys Asn Ile Ser Ile Ile Phe Lys Ala Gly Asp Asp Leu Arg Gln
                        920
Asp Met Leu Val Leu Gln Leu Ile Gln Val Met Asp Asn Ile Trp Leu
                     935
                                       940
Gln Glu Gly Leu Asp Met Gln Met İle Ile Tyr Arg Cys Leu Ser Thr
                 950
                                   955
Gly Lys Asp Gln Arg Leu Val Gln Met Val Pro Asp Ala Val Thr Leu
                               970
Ala Lys Ile His Arg His Ser Gly Leu Ile Gly Pro Leu Lys Glu Asn
          980
                            985
Thr Ile Lys Lys Trp Phe Ser Gln His Asn His Leu Lys Ala Asp Tyr
      995 1000 1005
Glu Lys Ala Leu Arg Asn Phe Phe Tyr Ser Cys Ala Gly Trp Cys Val
 1010 1015
                                     1020
Val Thr Phe Ile Leu Gly Val Cys Asp Arg His Asn Asp Asn Ile Met
    1030
                                 1035
Leu Thr Lys Ser Gly His Met Phe His Ile Asp Phe Gly Lys Phe Leu
             1045
                              1050
```

```
Gly His Ala Gln Thr Phe Gly Gly Ile Lys Arg Asp Arg Ala Pro Phe
                       1.065
 Ile Phe Thr Ser Glu Met Glu Tvr Phe Ile Thr Glu Gly Gly Lys Asn
                    1080
 Pro Gln His Phe Gln Asp Phe Val Glu Leu Cys Cys Arg Ala Tyr Asn
  1090 1095 1100
 Ile Ile Arg Lys His Ser Gln Leu Leu Leu Asn Leu Leu Glu Met Met
1105 1110 1115
Leu Tyr Ala Gly Leu Pro Glu Leu Ser Gly Ile Gln Asp Leu Lys Tyr
           1125 1130 1135
Val Tyr Asn Asn Leu Arg Pro Gln Asp Thr Asp Leu Glu Ala Thr Ser
        1140
                       1145 1150
 His Phe Thr Lys Lys Ile Lys Glu Ser Leu Glu Cys Phe Pro Val Lys
                    1160 1165
 Leu Asn Asn Leu Ile His Thr Leu Ala Gln Met Ser Ala Ile Ser Pro
                 1175
                                1180
Ala Lys Ser Thr Ser Gln Thr Phe Pro Gln Glu Ser Cys Leu Leu Ser
              1190
                             1195
Thr Thr Arg Ser Ile Glu Arg Ala Thr Ile Leu Gly Phe Ser Lys Lys
           1205 1210 1215
 Ser Ser Asn Leu Tyr Leu Ile Gln Val Thr His Ser Asn Asn Glu Thr
         1220 1225 1230
 Ser Leu Thr Glu Lys Ser Phe Glu Gln Phe Ser Lys Leu His Ser Gln
                   1240
                                   1245
Leu Gln Lys Gln Phe Ala Ser Leu Thr Leu Pro Glu Phe Pro His Trp
                 1255
                                 1260
 Tro His Leu Pro Phe Thr Asn Ser Asp His Arg Arg Phe Arg Asp Leu
              1270
                             1275
 Asn His Tyr Met Glu Gln Ile Leu Asn Val Ser His Glu Val Thr Asn
           1285 1290
 Ser Asp Cys Val Leu Ser Phe Phe Leu Ser Glu Ala Gly Gln Gln Thr
         1300 1305
                                       1310
 Val Glu Glu Ser Ser Pro Val Tyr Leu Gly Glu Lys Phe Pro Asp Lys
     1315 1320 1325
 Lys Pro Lys Val Gln Leu Val Ile Ser Tyr Glu Asp Val Lys Leu Thr
                 1335 1340
 Ile Leu Val Lys His Met Lys Asn Ile His Leu Pro Asp Gly Ser Ala
              1350 1355
 Pro Ser Ala His Val Glu Phe Tyr Leu Leu Pro Tyr Pro Ser Glu Val
           1365
                          1370 1375
 Arg Arg Arg Lys Thr Lys Ser Val Pro Lys Cys Thr Asp Pro Thr Tyr
         1380 1385 1390
 Asn Glu Ile Val Val Tyr Asp Glu Val Thr Glu Leu Gln Gly His Val
     1395 1400 1405
 Leu Met Leu Ile Val Lys Ser Lys Thr Val Phe Val Gly Ala Ile Asn
                 1415 1420
 Ile Arg Leu Cys Ser Val Pro Leu Asp Lys Glu Lys Trp Tyr Pro Leu
              1430 1435 1440
 Gly Asn Ser Ile Ile Xaa Pro Leu Leu Leu Phe Tyr Thr Ser Asn Phe
           1445 1450
 Met Gln Ser Val Leu His
         1460 1462
    <210> 1098
    <211> 111
     <212>Amino acid
```

<212-Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(111)
<223> X = any amino acid or stop code

<400> 1098 Phe Phe Leu Arg Trp Ser Leu Asp Ser Val Thr Gln Ala Gly Val Gln 10 Ser His Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Gly Phe Lys Gln 20 25 30 Ser Ser Leu Phe Gly Leu Pro Ser Ser Trp Glu Xaa Arg Trp Val Pro 35 40 45 Pro Cys Pro Ala Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe Arg 55 His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Asn Asp Leu Pro 70 75 Val Ser Ala Cys Gln Ser Ala Gly Ile Thr Gly Val Thr Thr Val Pro 85 90 Gln Arg Lys Ser Met Ile Leu Tyr Glu Val Thr Ile Cys Tyr Pro 100 105

<210> 1099 <211> 1070 <212>Amino acid <213> Homo sapiens <220>

<221> misc_feature <222> (1)...(1070)

<223> X = any amino acid or stop code

<400> 1099 Phe Val Arg Glu Ile Arg Gly Pro Ala Val Pro Arg Leu Thr Ser Ala 10 Glu Asp Arg His Arg His Gly Pro His Ala His Ser Pro Glu Leu Gln 25 Arg Thr Gly Arg Asp Tyr Ser Leu Asp Tyr Leu Pro Phe Arg Leu Trp 40 Val Gly Ile Trp Val Ala Thr Phe Cys Leu Val Leu Val Ala Thr Glu 55 Ala Ser Val Leu Val Arg Tyr Phe Thr Arg Phe Thr Glu Glu Gly Phe 70 75 Cys Ala Leu Ile Ser Leu Ile Phe Ile Tyr Asp Ala Val Gly Lys Met 90 85 Leu Asn Leu Thr His Thr Tyr Pro Ile Gln Lys Pro Gly Ser Ser Ala 100 105 Tyr Gly Cys Leu Cys Gln Tyr Pro Gly Pro Gly Gly Asn Glu Ser Gln 120 Trp Ile Arg Thr Arg Pro Lys Asp Arg Asp Asp Ile Val Ser Met Asp 135 140 Leu Gly Leu Ile Asn Ala Ser Leu Leu Pro Pro Pro Glu Cys Thr Arg 150 155 Gln Gly Gly His Pro Arg Gly Pro Gly Cys His Thr Val Pro Asp Ile 165 , 170 175 Ala Phe Phe Ser Leu Leu Leu Phe Leu Thr Ser Phe Phe Phe Ala Met 180 185 190 Ala Leu Lys Cys Val Lys Thr Ser Arg Phe Phe Pro Ser Val Val Arg 195 200 205 Lys Gly Leu Ser Asp Phe Ser Ser Val Leu Ala Ile Leu Leu Gly Cys 210 . 215 220

```
Gly Leu Asp Ala Phe Leu Gly Leu Ala Thr Pro Lys Leu Met Val Pro
             230
                                    235
Arg Glu Phe Lys Pro Thr Leu Pro Gly Arg Gly Trp Leu Val Ser Pro
              245
                                 250
Phe Gly Ala Asn Pro Trp Trp Trp Ser Val Ala Ala Ala Leu Pro Ala
          260
                             265
Leu Leu Leu Ser Ile Leu Ile Phe Met Asp Gln Gln Ile Thr Ala Val
                         280
Ile Leu Asn Arg Met Glu Tyr Arg Leu Gln Lys Gly Ala Gly Phe His
                      295
Leu Asp Leu Phe Trp Val Ala Val Leu Met Leu Leu Thr Ser Ala Leu
                 310
                                    315
Gly Leu Pro Trp Tyr Val Ser Ala Thr Val Ile Ser Leu Ala His Met
              325
                                 330
Asp Ser Leu Arg Arg Glu Ser Arg Ala Cys Ala Pro Gly Glu Arg Pro
           340
                             345
Asn Phe Leu Gly Ile Arg Glu Gln Arg Leu Thr Gly Leu Val Val Phe
                         360
Ile Leu Thr Gly Ala Ser Ile Phe Leu Ala Pro Val Leu Lys Phe Ile
                      375
                                        380
Pro Met Pro Val Leu Tyr Gly Ile Phe Leu Tyr Met Gly Val Ala Ala
                  390
                         395
Leu Ser Ser Ile Gln Phe Thr Asn Arg Val Lys Leu Leu Leu Met Pro
              405
                                 410
Ala Lys His Gln Pro Asp Leu Leu Leu Leu Arg His Val Pro Leu Thr
           420
                             425
Arg Val His Leu Phe Thr Ala Ile Ser Phe Ala Cys Leu Gly Leu Leu
       435
                         440
Trp Ile Ile Lys Ser Thr Pro Ala Ala Ile Ile Phe Pro Leu Met Leu
                      455
Leu Gly Leu Val Gly Val Arg Lys Ala Leu Glu Arg Val Phe Ser Pro
                  470
                                    475
Gln Glu Leu Leu Trp Leu Asp Glu Leu Met Pro Glu Glu Glu Arg Ser
              485
                                 490
                                                   495
Ile Pro Glu Lys Gly Leu Glu Pro Glu His Ser Phe Ser Gly Ser Asp
           500
                             505
                                              510
Ser Glu Asp Ser Glu Leu Met Tyr Gln Pro Lys Ala Pro Glu Ile Asn
                         520
                                           525
Ile Ser Val Asn Xaa Leu Glu Xaa Glu Phe Val Arg Glu Ile Arg Gly
                     535
                                        540
Pro Ala Val Pro Arg Leu Thr Ser Ala Glu Asp Arg His Arg His Gly
                  550
                                    555
Pro His Ala His Ser Pro Glu Leu Gln Arg Thr Gly Arg Asp Tyr Ser
                                570
              565
                                                   575
Leu Asp Tyr Leu Pro Phe Arg Leu Trp Val Gly Ile Trp Val Ala Thr
                            585
Phe Cys Leu Val Leu Val Ala Thr Glu Ala Ser Val Leu Val Arg Tyr
                         600
Phe Thr Arg Phe Thr Glu Glu Gly Phe Cys Ala Leu Ile Ser Leu Ile
                     615
                                       620
Phe Ile Tyr Asp Ala Val Gly Lys Met Leu Asn Leu Thr His Thr Tyr
                 630
                        635
Pro Ile Gln Lys Pro Gly Ser Ser Ala Tyr Gly Cys Leu Cys Gln Tyr
              645
                                650
Pro Gly Pro Gly Gly Asn Glu Ser Gln Trp Ile Arg Thr Arg Pro Lys
          660
                            665
Asp Arg Asp Asp Ile Val Ser Met Asp Leu Gly Leu Ile Asn Ala Ser
                         680
Leu Leu Pro Pro Pro Glu Cys Thr Arg Gln Gly Gly His Pro Arg Gly
                     695
                                        700
Pro Gly Cys His Thr Val Pro Asp Ile Ala Phe Phe Ser Leu Leu Leu
                                    715 720
Phe Leu Thr Ser Phe Phe Phe Ala Met Ala Leu Lys Cys Val Lys Thr
                                 730
```

Ser Arg Phe Phe Pro Ser Val Val Arg Lys Gly Leu Ser Asp Phe Ser 740 745 Ser Val Leu Ala Ile Leu Leu Gly Cys Gly Leu Asp Ala Phe Leu Gly 760 Leu Ala Thr Pro Lys Leu Met Val Pro Arg Glu Phe Lys Pro Thr Leu 775 780 Pro Gly Arg Gly Trp Leu Val Ser Pro Phe Gly Ala Asn Pro Trp Trp 790 795 Trp Ser Val Ala Ala Ala Leu Pro Ala Leu Leu Leu Ser Ile Leu Ile 810 815 805 Phe Met Asp Gln Gln Ile Thr Ala Val Ile Leu Asn Arg Met Glu Tyr 825 830 Arg Leu Gln Lys Gly Ala Gly Phe His Leu Asp Leu Phe Cys Val Ala 840 Val Leu Met Leu Leu Thr Ser Ala Leu Gly Leu Pro Trp Tyr Val Ser 855 Ala Thr Val Ile Ser Leu Ala His Met Asp Ser Leu Arg Arg Glu Ser 870 875 Arg Ala Cys Ala Pro Gly Glu Arg Pro Asn Phe Leu Gly Ile Arg Glu 885 890 Gln Arg Leu Thr Gly Leu Val Val Phe Ile Leu Thr Gly Ala Ser Ile 900 905 Phe Leu Ala Pro Val Leu Lys Phe Ile Pro Met Pro Val Leu Tyr Gly 920 925 Ile Phe Leu Tyr Met Gly Val Ala Ala Leu Ser Ser Ile Gln Phe Thr 935 940 Asn Arg Val Lys Leu Leu Leu Asp Ala Ser Lys Thr Pro Ala Arg Pro 950 955 Ala Thr Leu Ala Ala Cys Ala Ser Asp Gln Gly Pro Pro Leu His Ser 965 970 His Gln Leu Cys Pro Val Trp Gly Cys Phe Gly Ile Ile Lys Ser Thr 980 985 990 Pro Ala Ala Ile Ile Phe Pro Leu Met Leu Leu Gly Leu Val Gly Val 995 1000 1005 Arg Lys Ala Leu Glu Arg Val Phe Ser Pro Gln Glu Leu Leu Trp Leu 1015 1020 Asp Glu Leu Met Pro Glu Glu Glu Arg Ser Ile Pro Glu Lys Gly Leu 1030 1035 Glu Pro Glu His Ser Phe Ser Gly Ser Asp Ser Glu Asp Ser Glu Leu 1045 1050 1055 Met Tyr Gln Pro Lys Ala Pro Glu Ile Asn Ile Ser Val Asn 1060 1065

```
<210 1100
<211 875
<212>Amino acid
<2213 Homo sapiens
<220>
<2215 misc_feature
<2222 (1)...(875)
<2233 X = any amino acid or stop code</pre>
```

<400> 1100 Met Gly Leu Lys Ala Arg Arg Ala Ala Gly Ala Ala Gly Gly Gly Gly 1 5 10 15 Asp Gly Gly Gly Gly Gly Gly Gly Ala Ala Asn Pro Ala Gly Gly Asp 25 Ala Ala Ala Gly Asp Glu Glu Arg Lys Val Gly Leu Ala Pro Gly

40 Asp Val Glu Gln Val Thr Leu Ala Leu Gly Ala Gly Ala Asp Lys Asp 55 60 Gly Thr Leu Leu Glu Gly Gly Gly Arg Asp Glu Gly Gln Arg Arg 70 75 Thr Pro Gln Gly Ile Gly Leu Leu Ala Lys Thr Pro Leu Ser Arg Pro 8.5 9.0 Val Lys Arg Asn Asn Ala Lys Tyr Arg Arg Ile Gln Thr Leu Ile Tyr 105 Asp Ala Leu Glu Arg Pro Arg Gly Trp Ala Leu Leu Tyr His Ala Leu 120 Val Phe Leu Ile Val Leu Gly Cys Leu Ile Leu Ala Val Leu Thr Thr 135 Phe Lys Glu Tyr Glu Thr Val Ser Gly Asp Trp Leu Leu Leu Glu 150 155 Thr Phe Ala Ile Phe Ile Phe Gly Ala Glu Phe Ala Leu Arg Ile Trp 170 Ala Ala Gly Cys Cys Cys Arg Tyr Lys Gly Trp Arg Gly Arg Leu Lys 185 Phe Ala Arg Lys Pro Leu Cys Met Leu Asp Ile Phe Val Leu Ile Ala 195 200 205 Ser Val Pro Val Val Ala Val Gly Asn Gln Gly Asn Val Leu Ala Thr 215 Ser Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met Leu Arg Asp 230 235 Gly Pro Gly Glu Gly Gly Thr Trp Lys Leu Leu Gly Ser Ala Ile Cys 245 250 Ala His Ser Lys Glu Leu Ile Thr Ala Trp Tyr Ile Gly Phe Leu Thr 260 265 Leu Ile Leu Ser Ser Phe Leu Val Tyr Leu Val Glu Lys Asp Val Pro 285 280 Glu Val Asp Ala Gln Gly Glu Glu Met Lys Glu Glu Phe Glu Thr Tyr 295 300 Ala Asp Ala Leu Trp Trp Gly Leu Ile Thr Leu Ala Thr Ile Gly Tyr 310 315 Gly Asp Lys Thr Pro Lys Thr Trp Glu Gly Arg Leu Ile Ala Ala Thr 325 330 Phe Ser Leu Ile Gly Val Ser Phe Phe Ala Leu Pro Ala Gly Ile Leu 340 345 Gly Ser Gly Leu Ala Leu Lys Val Gln Glu Gln His Arg Gln Lys His 360 . 365 Phe Glu Lys Arg Arg Lys Pro Ala Ala Glu Leu Ile Gln Ala Ala Tro 375 380 Arg Tyr Tyr Ala Thr Asn Pro Asn Arg Ile Asp Leu Val Ala Thr Trp 390 395 Arg Phe Tyr Glu Ser Val Val Ser Phe Pro Phe Phe Arg Lys Glu Gln 405 410 Leu Glu Ala Ala Ser Ser Gln Lys Leu Gly Leu Leu Asp Arg Val Arg 425 Leu Ser Asn Pro Arg Gly Ser Asn Thr Lys Gly Lys Leu Phe Thr Pro 440 Leu Asn Val Asp Ala Ile Glu Glu Ser Pro Ser Lys Glu Pro Lys Pro 455 460 Val Gly Leu Asn Asn Lys Glu Arg Phe Arg Thr Ala Phe Arg Met Lys 470 475 Ala Tyr Ala Phe Trp Gln Ser Ser Glu Asp Ala Gly Thr Gly Asp Pro 485 490 Met Ala Glu Asp Arg Gly Tyr Gly Asn Asp Phe Pro Ile Glu Asp Met 505 Ile Pro Thr Leu Lys Ala Ala Ile Arg Ala Val Arg Ile Leu Gln Phe 520 525 Arg Leu Tyr Lys Lys Phe Lys Glu Thr Leu Arg Pro Tyr Asp Val 535 540 Lys Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu Asp Met Leu Ser

```
550
                                  555
Arg Ile Lys Tyr Leu Gln Thr Arg Ile Asp Met Ile Phe Thr Pro Gly
              565 570
Pro Pro Ser Thr Pro Lys His Lys Lys Ser Gln Lys Gly Ser Ala Phe
                           585
Thr Phe Pro Ser Gln Gln Ser Pro Arg Asn Glu Pro Tyr Val Ala Arg
                        600
Pro Ser Thr Ser Glu Ile Glu Asp Gln Arg His Xaa Trp Gly Lys Phe
                    615
Val Lys Ser Leu Lys Gly Gln Val Gln Gly Leu Gly Arg Lys Leu Asp
                 630
Phe Leu Val Asp Met His Met Gln His Met Glu Arg Leu Gln Val Gln
                               650
Val Thr Glu Tyr Tyr Pro Thr Lys Gly Thr Ser Ser Pro Ala Glu Ala
          660
                         665
                                            670
Glu Lys Lys Glu Asp Asn Arg Tyr Ser Asp Leu Lys Thr Ile Ile Cys
      675
                       680
Asn Tyr Ser Glu Thr Gly Pro Pro Glu Pro Pro Tyr Ser Phe His Gln
                    695
                                   700
Val Thr Ile Asp Lys Val Ser Pro Tyr Gly Phe Phe Ala His Asp Pro
                710
                                  715
Val Asn Leu Pro Arg Gly Gly Pro Ser Ser Gly Lys Val Gln Ala Thr
             725
                              730
Pro Pro Ser Ser Ala Thr Thr Tyr Val Glu Arg Pro Thr Val Leu Pro
         740
                           745 750
Ile Leu Thr Leu Leu Asp Ser Arg Val Ser Cys His Ser Gln Ala Asp
   755 760 765
Leu Gln Gly Pro Tyr Ser Asp Arg Ile Ser Pro Arg Gln Arg Arg Ser
                 775
                                     780
Ile Thr Arg Asp Ser Asp Thr Pro Leu Ser Leu Met Ser Val Asn His
              790 795
Glu Glu Leu Glu Arg Ser Pro Ser Gly Phe Ser Ile Ser Gln Asp Arg
             805
                              810
Asp Asp Tyr Val Phe Gly Pro Asn Gly Gly Ser Ser Trp Met Arg Glu
                           825
Lys Arg Tyr Leu Ala Glu Gly Glu Thr Asp Thr Asp Thr Asp Pro Phe
      835
                       840
Thr Pro Ser Gly Ser Met Pro Leu Ser Ser Thr Gly Asp Gly Ile Ser
                   855
Asp Ser Val Trp Thr Pro Ser Asn Lys Pro Ile
                870
```

<210> 1101 <211> 3530

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(3530) <223> X = any amino acid or stop code

400> 1101
Arg Thr Arg Gly Ile Ile Glu Phe Asp Pro Lys Tyr Thr Ala Phe Glu
1 5 10 15
Val Glu Glu Asp Val Gly Leu Ile Met Ile Pro Val Val Arg Leu His
20 25 30
Gly Thr Tyr Gly Tyr Val Thr Ala Asp Phe Ile Ser Gln Ser Ser Ser
35 40 465

```
Ala Ser Pro Gly Gly Val Asp Tyr Ile Leu His Gly Ser Thr Val Thr
                      55
Phe Gln His Gly Gln Asn Leu Ser Phe Ile Asn Ile Ser Ile Ile Asp
                  70
                                    75
Asp Asn Glu Ser Glu Phe Glu Glu Pro Ile Glu Ile Leu Leu Thr Gly
              85
                                90
Ala Thr Gly Gly Ala Val Leu Gly Arg His Leu Val Ser Arg Ile Ile
                           105
Ile Ala Lys Ser Asp Ser Pro Phe Gly Val Ile Arg Phe Leu Asn Gln
      115 120
Ser Lys Ile Ser Ile Ala Asn Pro Asn Ser Thr Met Ile Leu Ser Leu
                     135
                                       140
Val Leu Glu Arg Thr Gly Gly Leu Leu Gly Glu Ile Gln Val Asn Trp
                 150
                                   155
Glu Thr Val Gly Pro Asn Ser Gln Glu Ala Leu Leu Pro Gln Asn Arg
             165
                               170
Asp Ile Ala Asp Pro Val Ser Gly Leu Phe Tyr Phe Gly Glu Gly Glu
          1.80
                            185
Gly Gly Val Arg Thr Ile Ile Leu Thr Ile Tyr Pro His Glu Glu Ile
                         200
Glu Val Glu Glu Thr Phe Ile Ile Lys Leu His Leu Val Lys Gly Glu
                     215
                                       220
Ala Lys Leu Asp Ser Arg Ala Lys Asp Val Thr Leu Thr Ile Gln Glu
                 230
                                   235
Phe Gly Asp Pro Asn Gly Val Val Gln Phe Ala Pro Glu Thr Leu Ser
              245
                                250
Lys Lys Thr Tyr Ser Glu Pro Leu Ala Leu Glu Gly Pro Leu Leu Ile
                             265
Thr Phe Phe Val Arg Arg Val Lys Gly Thr Phe Gly Glu Ile Met Val
                        280
Tyr Trp Glu Leu Ser Ser Glu Phe Asp Ile Thr Glu Asp Phe Leu Ser
                     295
                                       300
Thr Ser Gly Phe Phe Thr Ile Ala Asp Gly Glu Ser Glu Ala Ser Phe
                 310
                                   315
Asp Val His Leu Leu Pro Asp Glu Val Pro Glu Ile Glu Glu Asp Tyr
              325
                                330
                                                  335
Val Ile Gln Leu Val Ser Val Glu Gly Gly Ala Glu Leu Asp Leu Glu
          340
                            345
                                              350
Lys Ser Ile Thr Trp Phe Ser Val Tyr Ala Asn Asp Asp Pro His Gly
                       360
Val Phe Ala Leu Tyr Ser Asp Arg Gln Ser Ile Leu Ile Gly Gln Asn
                    375
                                       380
Leu Ile Arg Ser Ile Gln Ile Asn Ile Thr Arg Leu Ala Gly Thr Phe
                 390
                                   395
Gly Asp Val Ala Val Gly Leu Arg Ile Ser Ser Asp His Lys Glu Gln
             405
                               410
Pro Ile Val Thr Glu Asn Ala Glu Arg Gln Leu Val Val Lys Asp Gly
          420
                           425 430
Ala Thr Tyr Lys Val Asp Val Val Pro Ile Lys Asn Gln Val Phe Leu
     435
             440
Ser Leu Gly Ser Asm Phe Thr Leu Gln Leu Val Thr Val Met Leu Val
        455
Gly Gly Arg Phe Tyr Gly Met Pro Thr Ile Leu Gln Glu Ala Lys Ser
                 470
                                   475
Ala Val Leu Pro Val Ser Glu Lys Ala Ala Asn Ser Gln Val Gly Phe
             485
                               490
Glu Ser Thr Ala Phe Gln Leu Met Asn Ile Thr Ala Gly Thr Ser His
                            505
Val Met Ile Ser Arg Arg Gly Thr Tyr Gly Ala Leu Ser Val Ala Trp
                        520
Thr Thr Gly Tyr Ala Pro Gly Leu Glu Ile Pro Glu Phe Ile Val Val
               535
                                       540
Gly Asn Met Thr Pro Thr Leu Gly Ser Leu Ser Phe Ser His Gly Glu
545
                 550
                                   555
```

```
Gln Arg Lys Gly Val Phe Leu Trp Thr Phe Pro Ser Pro Gly Trp Pro
              565
                                570
Glu Ala Phe Val Leu His Leu Ser Gly Val Gln Ser Ser Ala Pro Gly
           580
                            585
Gly Ala Gln Leu Arg Ser Gly Phe Ile Val Ala Glu Ile Glu Pro Met
              600
Gly Val Phe Gln Phe Ser Thr Ser Ser Arg Asn Ile Ile Val Ser Glu
           615
                                       620
Asp Thr Gln Met Ile Arg Leu His Val Gln Arg Leu Phe Gly Phe His
                  630
                                    635
Ser Asp Leu Ile Lys Val Ser Tyr Gln Thr Thr Ala Gly Ser Ala Lys
              645
                                650
Pro Leu Glu Asp Phe Glu Pro Val Gln Asn Gly Glu Leu Phe Phe Gln
                            665
Lys Phe Gln Thr Glu Val Asp Phe Glu Ile Thr Ile Ile Asn Asp Gln
                         680
Leu Ser Glu Ile Glu Glu Phe Phe Tyr Ile Asn Leu Thr Ser Val Glu
                     695
                                       700
Ile Arg Gly Leu Gln Lys Phe Asp Val Asn Trp Ser Pro Arg Leu Asn
                  710
                                    715
Leu Asp Phe Ser Val Ala Val Ile Thr Ile Leu Asp Asn Asp Asp Leu
               725
                                 730
Ala Gly Met Asp Ile Ser Phe Pro Glu Thr Thr Val Ala Val Ala Val
                             745
           740
Asp Thr Thr Leu Ile Pro Val Glu Thr Glu Ser Thr Thr Tyr Leu Ser
                         760
Thr Ser Lys Thr Thr Thr Ile Leu Gln Pro Thr Asn Val Val Ala Ile
                      775
Val Thr Glu Ala Thr Gly Val Ser Ala Ile Pro Glu Lys Leu Val Thr
                  790
                                    795
Leu His Gly Thr Pro Ala Val Ser Glu Lys Pro Asp Val Ala Thr Val
                                 810
Thr Ala Asn Val Ser Ile His Gly Thr Phe Ser Leu Gly Pro Ser Ile
                             825
Val Tyr Ile Glu Glu Glu Met Lys Asn Gly Thr Phe Asn Thr Ala Glu
                         840
Val Leu Ile Arg Arg Thr Gly Gly Phe Thr Gly Asn Val Ser Ile Thr
                      855
                                       860
Val Lys Thr Phe Gly Glu Arg Cys Ala Gln Met Glu Pro Asn Ala Leu
                  870
                                   875
Pro Phe Arg Gly Ile Tyr Gly Ile Ser Asn Leu Thr Trp Ala Val Glu
               885
                                890
Glu Glu Asp Phe Glu Glu Gln Thr Leu Thr Leu Ile Phe Leu Asp Gly
                            905
Glu Arg Glu Arg Lys Val Ser Val Gln Ile Leu Asp Asp Asp Glu Pro
                        920
Glu Gly Gln Glu Phe Phe Tyr Val Phe Leu Thr Asn Pro Gln Gly Gly
                    935
                                       940
Ala Gln Ile Val Glu Gly Lys Asp Asp Thr Gly Phe Ala Ala Phe Ala
                 950
                                   955
Met Val Ile Ile Thr Gly Ser Asp Leu His Asn Gly Ile Ile Gly Phe
              965
                               970
Ser Glu Glu Ser Gln Ser Gly Leu Glu Leu Arg Glu Gly Ala Val Met
          980
                            985
Arg Arg Leu His Leu Ile Val Thr Arg Gln Pro Asn Arg Ala Phe Glu
                       1000 . 1005
Asp Val Lys Val Phe Trp Arg Val Thr Leu Asn Lys Thr Val Val Val
                    1015
                                      1020
Leu Gln Lys Asp Gly Val Asn Leu Met Glu Glu Leu Gln Ser Val Ser
                1030 1035
Gly Thr Thr Thr Cys Thr Met Gly Gln Thr Lys Cys Phe Ile Ser Ile
            1045 1050 1055
Glu Leu Lys Pro Glu Lys Val Pro Gln Val Glu Val Tyr Phe Phe Val
          1060
                           1065
```

Glu Leu Tyr Glu Ala Thr Ala Gly Ala Ala Ile Asn Asn Ser Ala Arg 1075 1080 Phe Ala Gln Ile Lys Ile Leu Glu Ser Asp Glu Ser Gln Ser Leu Val 1095 1100 Tyr Phe Ser Val Gly Ser Arg Leu Ala Val Ala His Lys Lys Ala Thr 1110 1115 Leu Ile Ser Leu Gln Val Ala Arg Asp Ser Gly Thr Gly Leu Met Met 1125 1130 1135 Ser Val Asn Phe Ser Thr Gln Glu Leu Arg Ser Ala Glu Thr Ile Gly 1140 1145 1150 Arg Thr Ile Ile Ser Pro Ala Ile Ser Gly Lys Asp Phe Val Ile Thr 1160 1165 Glu Gly Thr Leu Val Phe Glu Pro Gly Gln Arg Ser Thr Val Leu Asp 1170 1175 1180 Val Ile Leu Thr Pro Glu Thr Gly Ser Leu Asn Ser Phe Pro Lys Arq 1190 1195 Phe Gln Ile Val Leu Phe Asp Pro Lys Gly Gly Ala Arg Ile Asp Lys 1205 1210 1215 Val Tyr Gly Thr Ala Asn Ile Thr Leu Val Ser Asp Ala Asp Ser Gln 1220 1225 Ala Ile Trp Gly Leu Ala Asp Gln Leu His Gln Pro Val Asn Asp Asp 1240 1245 Ile Leu Asn Arg Val Leu His Thr Ile Ser Met Lys Val Ala Thr Glu 1255 1260 Asn Thr Asp Glu Gln Leu Ser Ala Met Met His Leu Ile Glu Lys Ile 1270 1275 Thr Thr Glu Gly Lys Ile Gln Ala Phe Ser Val Ala Ser Arg Thr Leu 1285 1290 Phe Tyr Glu Ile Leu Cys Ser Leu Ile Asn Pro Lys Arg Lys Asp Thr 1305 1310 Arg Gly Phe Ser His Phe Ala Glu Leu Thr Glu Asn Phe Ala Phe Ser 1320 1325 Leu Leu Thr Asn Val Thr Cys Gly Ser Pro Gly Glu Lys Ser Lys Thr 1335 1340 Ile Leu Asp Ser Cys Pro Tyr Leu Ser Ile Leu Ala Leu His Trp Tyr 1350 1355 1360 Pro Gln Gln Ile Asn Gly His Lys Phe Glu Gly Lys Glu Gly Asp Tyr 1365 1370 1375 Ile Arg Ile Pro Glu Arg Leu Leu Asp Val Gln Asp Ala Glu Ile Met 1380 1385 1390 Ala Gly Lys Ser Thr Cys Lys Leu Val Gln Phe Thr Glu Tyr Ser Ser 1395 1400 1405 Gln Gln Trp Phe Ile Ser Gly Asn Asn Leu Pro Thr Leu Lys Asn Lys 1415 1420 Val Leu Ser Leu Ser Val Lys Gly Gln Ser Ser Gln Leu Leu Thr Asn 1425 1430 1435 Asp Asn Glu Val Leu Tyr Arg Ile Tyr Ala Ala Glu Pro Arg Ile Ile 1445 1450 Pro Gln Thr Ser Leu Cys Leu Leu Trp Asn Gln Ala Ala Ala Ser Trp 1460 1465 1470 Leu Ser Asp Ser Gln Phe Cys Lys Val Ile Glu Glu Thr Ala Asp Tyr 1475 1480 Val Glu Cys Ala Cys Leu His Met Ser Val Tyr Ala Val Tyr Ala Arg 1495 1500 Thr Asp Asn Leu Ser Ser Tyr Asn Glu Ala Phe Phe Thr Ser Gly Phe 1510 1515 Ile Cys Ile Ser Gly Leu Cys Leu Ala Val Leu Ser His Ile Phe Cys 1525 1530 1535 Ala Arg Tyr Ser Met Phe Ala Ala Lys Leu Leu Thr His Met Met Ala 1540 1545 1550 Ala Ser Leu Gly Thr Gln Ile Leu Phe Leu Ala Ser Ala Tyr Ala Ser 1555 1560 1565 Pro Gln Leu Ala Glu Glu Ser Cys Ser Ala Met Ala Ala Val Thr His 1575 1580

Tyr Leu Tyr Leu Cys Gln Phe Ser Trp Met Leu Ile Gln Ser Val Asn 1590 1595 Phe Trp Tyr Val Leu Val Met Asn Asp Glu His Thr Glu Arg Arg Tyr 1605 1610 Leu Leu Phe Phe Leu Leu Ser Trp Gly Leu Pro Ala Phe Val Val Ile 1620 1625 1630 Leu Leu Ile Val Ile Leu Lys Gly Ile Tyr His Gln Ser Met Ser Gln 1635 1640 1645 Ile Tyr Gly Leu Ile His Gly Asp Leu Cys Phe Ile Pro Asn Val Tyr 1650 1655 1660 Ala Ala Leu Phe Thr Ala Ala Leu Val Pro Leu Thr Cys Leu Val Val 1665 1670 1675 1680 Val Phe Val Val Phe Ile His Ala Tyr Gln Val Lys Pro Gln Trp Lys 1685 1690 1695 Ala Tyr Asp Asp Val Phe Arg Gly Arg Thr Asn Ala Ala Glu Ile Pro 1705 1710 Leu Ile Leu Tyr Leu Phe Ala Leu Ile Ser Val Thr Trp Leu Trp Gly 1715 1720 1725 Gly Leu His Met Ala Tyr Arg His Phe Trp Met Leu Val Leu Phe Val 1730 1735 1740 Ile Phe Asn Ser Leu Gln Leu Leu Tyr Pro Leu Phe Tyr Phe Leu Leu 1745 1750 1755 1760 Leu Xaa Asp Gln Ser Ser Ala Ser Pro Gly Gly Val Asp Tyr Ile 1765 . 1770 1775 Leu His Gly Ser Thr Val Thr Phe Gln His Gly Gln Asn Leu Ser Phe 1780 1785 1790 Ile Asn Ile Ser Ile Ile Asp Asp Asn Glu Ser Glu Phe Glu Glu Pro 1800 1805 Ile Glu Ile Leu Leu Thr Gly Ala Thr Gly Gly Ala Val Leu Gly Arg 1810 1815 1820 His Leu Val Ser Arg Ile Ile Ile Ala Lys Ser Asp Ser Pro Phe Gly 1830 1835 1840 Val Ile Arg Phe Leu Asn Gln Ser Lys Ile Ser Ile Ala Asn Pro Asn 1850 1855 Ser Thr Met Ile Leu Ser Leu Val Leu Glu Arg Thr Gly Gly Leu Leu 1865 1870 Gly Glu Ile Gln Val Asn Trp Glu Thr Val Gly Pro Asn Ser Gln Glu 1875 1880 1885 Ala Leu Leu Pro Gln Asn Arg Asp Ile Ala Asp Pro Val Ser Gly Leu 1890 1895 1900 Phe Tyr Phe Gly Glu Gly Glu Gly Val Arg Thr Ile Ile Leu Thr 1910 1915 1920 Ile Tyr Pro His Glu Glu Ile Glu Val Glu Glu Thr Phe Ile Ile Lys 1925 1930 1935 Leu His Leu Val Lys Gly Glu Ala Lys Leu Asp Ser Arg Ala Lys Asp 1940 1945 Val Thr Leu Thr Ile Gln Glu Phe Gly Asp Pro Asn Gly Val Val Gln 1960 1965 Phe Ala Pro Glu Thr Leu Ser Lys Lys Thr Tyr Ser Glu Pro Leu Ala 1975 1980 Leu Glu Gly Pro Leu Leu Ile Thr Phe Phe Val Arg Arg Val Lys Gly 1990 1995 Thr Phe Gly Glu Ile Met Val Tyr Trp Glu Leu Ser Ser Glu Phe Asp 2005 2010 Ile Thr Glu Asp Phe Leu Ser Thr Ser Gly Phe Phe Thr Ile Ala Asp 2020 2025 2030 Gly Glu Ser Glu Ala Ser Phe Asp Val His Leu Leu Pro Asp Glu Val 2035 2040 2045 Pro Glu Ile Glu Glu Asp Tyr Val Ile Gln Leu Val Ser Val Glu Gly 2050 2055 2060 Gly Ala Glu Leu Asp Leu Glu Lys Ser Ile Thr Trp Phe Ser Val Tyr 2065 2070 2075 2080 Ala Asn Asp Asp Pro His Gly Val Phe Ala Leu Tyr Ser Asp Arg Gln 2085 2090 2095

```
Ser Ile Leu Ile Gly Gln Asn Leu Ile Arg Ser Ile Gln Ile Asn Ile
                       2105
 Thr Arg Leu Ala Gly Thr Phe Gly Asp Val Ala Val Gly Leu Arg Ile
     2115 2120
                                   2125
 Ser Ser Asp His Lys Glu Gln Pro Ile Val Thr Glu Asn Ala Glu Arg
  2130 2135 2140
 Gln Leu Val Val Lys Asp Gly Ala Thr Tyr Lys Val Asp Val Val Pro
              2150 2155
Ile Lys Asn Gln Val Phe Leu Ser Leu Gly Ser Asn Phe Thr Leu Gln
           2165
                          2170 2175
Leu Val Thr Val Met Leu Val Gly Gly Arg Phe Tyr Gly Met Pro Thr
        2180
                       2185 2190
Ile Leu Gln Glu Ala Lys Ser Ala Val Leu Pro Val Ser Glu Lys Ala
                    2200 2205
Ala Asn Ser Gln Val Gly Phe Glu Ser Thr Ala Phe Gln Leu Met Asn
  2210 2215
Ile Thr Ala Gly Thr Ser His Val Met Ile Ser Arg Arg Gly Thr Tyr
              2230
                             2235
Gly Ala Leu Ser Val Ala Trp Thr Thr Gly Tyr Ala Pro Gly Leu Glu
                2250
           2245
Ile Pro Glu Phe Ile Val Val Gly Asn Met Thr Pro Thr Leu Gly Ser
        2260
                       2265
                                      2270
Leu Ser Phe Ser His Gly Glu Gln Arg Lys Gly Val Phe Leu Trp Thr
                    2280
                                   2285
Phe Pro Ser Pro Gly Trp Pro Glu Ala Phe Val Leu His Leu Ser Gly
                 2295 2300
Val Gln Ser Ser Ala Pro Gly Gly Ala Gln Leu Arg Ser Gly Phe Ile
              2310 2315 2320
Val Ala Glu Ile Glu Pro Met Gly Val Phe Gln Phe Ser Thr Ser Ser
           2325 2330 2335
Arg Asn Ile Ile Val Ser Glu Asp Thr Gln Met Ile Arg Leu His Val
        2340 2345 2350
Gln Arg Leu Phe Gly Phe His Ser Asp Leu Ile Lys Val Ser Tyr Gln
     2355 2360
                                   2365
Thr Thr Ala Gly Ser Ala Lys Pro Leu Glu Asp Phe Glu Pro Val Gln
  2370 2375
                                2380
Asn Gly Glu Leu Phe Phe Gln Lys Phe Gln Thr Glu Val Asp Phe Glu
       2390 2395
Ile Thr Ile Ile Asn Asp Gln Leu Ser Glu Ile Glu Glu Phe Phe Tyr
           2405 2410 2415
Ile Asn Leu Thr Ser Val Glu Ile Arg Gly Leu Gln Lys Phe Asp Val
        2420
                      2425
Asn Trp Ser Pro Arg Leu Asn Leu Asp Phe Ser Val Ala Val Ile Thr
     2435 2440
Ile Leu Asp Asn Asp Asp Leu Ala Gly Met Asp Ile Ser Phe Pro Glu
  2450 2455
                                2460
Thr Thr Val Ala Val Ala Val Asp Thr Thr Leu Ile Pro Val Glu Thr
2465 2470 2475
Glu Ser Thr Thr Tyr Leu Ser Thr Ser Lys Thr Thr Thr Ile Leu Gln
          2485 2490 2495
Pro Thr Asn Val Val Ala Ile Val Thr Glu Ala Thr Gly Val Ser Ala
                      2505 2510
Ile Pro Glu Lys Leu Val Thr Leu His Gly Thr Pro Ala Val Ser Glu
                  2520 2525
Lys Pro Asp Val Ala Thr Val Thr Ala Asn Val Ser Ile His Gly Thr
  2530 2535 2540
Phe Ser Leu Gly Pro Ser Ile Val Tyr Ile Glu Glu Glu Met Lys Asn
2545 2550
                            2555
Gly Thr Phe Asn Thr Ala Glu Val Leu Ile Arg Arg Thr Gly Gly Phe
       2565 2570 2575
Thr Gly Asn Val Ser Ile Thr Val Lys Thr Phe Gly Glu Arg Cys Ala
      2580 2585 2590
Gln Met Glu Pro Asn Ala Leu Pro Phe Arg Gly Ile Tyr Gly Ile Ser
     2595
                   2600
```

Asn Leu Thr Trp Ala Val Glu Glu Glu Asp Phe Glu Glu Gln Thr Leu 2615 2620 Thr Leu Ile Phe Leu Asp Gly Glu Arg Glu Arg Lys Val Ser Val Gln 2625 2630 2635 Ile Leu Asp Asp Asp Glu Pro Glu Gly Gln Glu Phe Phe Tyr Val Phe 2645 2650 Leu Thr Asn Pro Gln Gly Gly Ala Gln Ile Val Glu Gly Lys Asp Asp 2660 2665 Thr Gly Phe Ala Ala Phe Ala Met Val Ile Ile Thr Gly Ser Asp Leu 2675 2680 2685 His Asn Gly Ile Ile Gly Phe Ser Glu Glu Ser Gln Ser Gly Leu Glu 2695 2700 Leu Arg Glu Gly Ala Val Met Arg Arg Leu His Leu Ile Val Thr Arg 2710 2715 Gln Pro Asn Arg Ala Phe Glu Asp Val Lys Val Phe Trp Arg Val Thr 2725 2730 2735 Leu Asn Lys Thr Val Val Val Leu Gln Lys Asp Gly Val Asn Leu Met 2740 2745 2750 Glu Glu Leu Gln Ser Val Ser Gly Thr Thr Thr Cys Thr Met Gly Gln 2760 2765 Thr Lys Cys Phe Ile Ser Ile Glu Leu Lys Pro Glu Lys Val Pro Gln 2770 2775 2780 Val Glu Val Tyr Phe Phe Val Glu Leu Tyr Glu Ala Thr Ala Gly Ala 2790 2795 Ala Ile Asn Asn Ser Ala Arg Phe Ala Gln Ile Lys Ile Leu Glu Ser 2805 2810 2815 Asp Glu Ser Gln Ser Leu Val Tyr Phe Ser Val Gly Ser Arg Leu Ala 2820 2825 2830 Val Ala His Lys Lys Ala Thr Leu Ile Ser Leu Gln Val Ala Arg Asp 2835 2840 2845 Ser Gly Thr Gly Leu Met Met Ser Val Asn Phe Ser Thr Gln Glu Leu 2850 2855 2860 Arg Ser Ala Glu Thr Ile Gly Arg Thr Ile Ile Ser Pro Ala Ile Ser 2865 2870 2875 Gly Lys Asp Phe Val Ile Thr Glu Gly Thr Leu Val Phe Glu Pro Gly 2885 2890 Gln Arg Ser Thr Val Leu Asp Val Ile Leu Thr Pro Glu Thr Gly Ser 2900 2905 Leu Asn Ser Phe Pro Lys Arg Phe Gln Ile Val Leu Phe Asp Pro Lys 2915 2920 2925 Gly Gly Ala Arg Ile Asp Lys Val Tyr Gly Thr Ala Asn Ile Thr Leu 2930 2935 2940 Val Ser Asp Ala Asp Ser Gln Ala Ile Trp Gly Leu Ala Asp Gln Leu 2950 2955 2960 His Gln Pro Val Asn Asp Asp Ile Leu Asn Arg Val Leu His Thr Ile 2965 2970 2975 Ser Met Lys Val Ala Thr Glu Asn Thr Asp Glu Gln Leu Ser Ala Met 2980 2985 2990 Met His Leu Ile Glu Lys Ile Thr Thr Glu Gly Lys Ile Gln Ala Phe 2995 3000 3005 Ser Val Ala Ser Arg Thr Leu Phe Tyr Glu Ile Leu Cys Ser Leu Ile 3010 3015 3020 Asn Pro Lys Arg Lys Asp Thr Arg Gly Phe Ser His Phe Ala Glu Leu 3030 3035 Thr Glu Asn Phe Ala Phe Ser Leu Leu Thr Asn Val Thr Cys Gly Ser 3045 3050 3055 Pro Gly Glu Lys Ser Lys Thr Ile Leu Asp Ser Cys Pro Tyr Leu Ser 3060 3065 3070 Ile Leu Ala Leu His Trp Tyr Pro Gln Gln Ile Asn Gly His Lys Phe 3075 3080 3085 Glu Gly Lys Glu Gly Asp Tyr Ile Arg Ile Pro Glu Arg Leu Leu Asp $3090 \hspace{1.5cm} 3095 \hspace{1.5cm} .\hspace{1.5cm} 3100$ Val Gln Asp Ala Glu Ile Met Ala Gly Lys Ser Thr Cys Lys Leu Val 3110 3115

Gln Phe Thr Glu Tyr Ser Ser Gln Gln Trp Phe Ile Ser Gly Asn Asn 3125 3130 Leu Pro Thr Leu Lys Asn Lys Val Leu Ser Leu Ser Val Lys Gly Gln 3140 3145 3150 Ser Ser Gln Leu Leu Thr Asn Asp Asn Glu Val Leu Tyr Arg Ile Tyr 3155 3160 3165 Ala Ala Glu Pro Arg Ile Ile Pro Gln Thr Ser Leu Cys Leu Leu Trp 3175 3180 Asn Gln Ala Ala Ala Ser Trp Leu Ser Asp Ser Gln Phe Cys Lys Val 3190 31.95 Ile Glu Glu Thr Ala Asp Tyr Val Glu Cys Ala Cys Leu His Met Ser 3205 3210 3215 Val Tyr Ala Val Tyr Ala Arg Thr Asp Asn Leu Ser Ser Tyr Asn Glu 3220 3225 3230 Ala Phe Phe Thr Ser Gly Phe Ile Cys Ile Ser Gly Leu Cys Leu Ala 3240 Val Leu Ser His Ile Phe Cys Ala Arg Tyr Ser Met Phe Ala Ala Lys 3250 3255 3260 Leu Leu Thr His Met Met Ala Ala Ser Leu Gly Thr Gln Ile Leu Phe 3270 3275 Leu Ala Ser Ala Tyr Ala Ser Pro Gln Leu Ala Glu Glu Ser Cys Ser 3285 3290 3295 Ala Met Ala Ala Val Thr His Tyr Leu Tyr Leu Cys Gln Phe Ser Trp 3305 3300 3310 Met Leu Ile Gln Ser Val Asn Phe Trp Tyr Val Leu Val Met Asn Asp 3320 3325 Glu His Thr Glu Arg Arg Tyr Leu Leu Phe Phe Leu Leu Ser Tro Gly 3335 3340 Leu Pro Ala Phe Val Val Ile Leu Leu Ile Val Ile Leu Lys Gly Ile 3350 3355 3360 Tyr His Gln Ser Met Ser Gln Ile Tyr Gly Leu Ile His Gly Asp Leu 3365 3370 3375 Cys Phe Ile Pro Asn Val Tyr Ala Ala Leu Phe Thr Ala Ala Leu Val 3385 3390 Pro Leu Thr Cys Leu Val Val Val Phe Val Val Phe Ile His Ala Tyr 3400 3405 Gln Val Lys Pro Gln Trp Lys Ala Tyr Asp Asp Val Phe Arg Gly Arg 3415 3420 Thr Asn Ala Ala Glu Ile Pro Leu Ile Leu Tyr Leu Phe Ala Leu Ile 3430 3435 3440 Ser Val Thr Trp Leu Trp Gly Gly Leu His Met Ala Tyr Arg His Phe 3445 3450 3455 Trp Met Leu Val Leu Phe Val Ile Phe Asn Ser Leu Gln Leu Leu Val 3460 3465 3470 Pro Ser Val Leu Leu Phe Thr Ser Met Arg Ser Thr Phe Phe Ser Phe 3475 3480 3485 His Thr Gly Thr Leu Thr Ser Arg Glu Lys Lys Ser Thr Phe Val Leu 3490 3495 3500 Thr Cys Leu Leu Ser Pro Asp Ser Lys Gly Leu Gly Val Leu Cys Phe 3505 3510 3515 Leu Asn Thr Glu Trp Ala Phe Gln Val His

a Ash Thr Giu Trp Ala Phe Gln Val His 3525 3530

<210> 1102 <211> 945 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature

<222> (1)...(945) <223> X = any amino acid or stop code

<400> 1102 Ala Ala Gly Ala Thr Met Glu Arg Asp Gly Cys Ala Gly Gly Gly Ser 10 Arg Gly Gly Glu Gly Gly Arg Ala Pro Arg Glu Gly Pro Ala Gly Asn 25 Gly Arg Asp Arg Gly Arg Ser His Ala Ala Glu Ala Pro Gly Asp Pro 35 40 Gln Ala Ala Ala Ser Leu Leu Ala Pro Met Asp Val Gly Glu Glu Pro 55 Leu Glu Lys Ala Ala Arg Ala Arg Thr Ala Lys Asp Pro Asn Thr Tyr Lys Val Leu Ser Leu Val Leu Ser Val Cys Val Leu Thr Thr Ile Leu 90 Gly Cys Ile Phe Gly Leu Lys Pro Ser Cys Ala Lys Glu Val Lys Ser 105 Cys Lys Gly Arg Cys Phe Glu Arg Thr Phe Gly Asn Cys Arg Cys Asp 120 125 Ala Ala Cys Val Glu Leu Gly Asn Cys Cys Leu Gly Leu Pro Gly Gly 135 Thr Cys Ile Glu Pro Glu His Ile Trp Thr Cys Asn Lys Phe Arg Cys 150 155 Gly Glu Lys Arg Leu Thr Arg Ser Leu Cys Ala Cys Ser Asp Asp Cys 165 170 Lys Asp Arg Gly Asp Cys Leu Pro Ser Asn Leu Gln Phe Leu Cys Val 185 180 Gln Gly Glu Lys Ser Trp Gly Arg Lys Asn Pro Cys Glu Ser His Leu 200 Met Glu Pro Gln Cys Pro Ala Gly Phe Glu Thr Pro Ser Leu Pro Leu 215 Leu Ile Phe Ser Leu Asp Gly Phe Arg Ala Glu Tyr Leu His Thr Trp 230 235 Gly Gly Leu Leu Pro Val Ile Ser Lys Leu Lys Lys Cys Gly Thr Tyr 245 250 Thr Lys Asn Met Arg Pro Val Tyr Pro Thr Lys Thr Phe Pro Asn His 265 Tyr Ser Ile Val Thr Gly Leu Tyr Pro Glu Ser His Gly Ile Ile Asn 280 Asn Lys Met Tyr Asp Pro Lys Met Asn Ala Ser Phe Ser Leu Lys Ser 295 300 Lys Glu Lys Phe Asn Pro Glu Trp Tyr Lys Gly Glu Pro Ile Trp Val 310 315 Thr Ala Lys Tyr Gln Gly Leu Lys Ser Gly Thr Phe Phe Trp Pro Gly 330 Ser Asp Val Glu Ile Asn Gly Ile Phe Pro Asp Ile Tyr Lys Met Tyr 345 Asn Gly Ser Val Pro Phe Glu Glu Arg Ile Leu Ala Val Leu Gln Trp 360 Leu Gln Leu Pro Lys Asp Glu Arg Pro His Phe Tyr Thr Leu Tyr Leu 375 380 Glu Glu Pro Asp Ser Ser Gly His Ser Tyr Gly Pro Val Ser Ser Glu 390 395 Val Ile Lys Ala Leu Gln Arg Val Asp Gly Met Val Gly Met Leu Met 405 410 Asp Gly Leu Lys Glu Leu Asn Leu His Arg Cys Leu Asn Leu Ile Leu 420 425 Ile Ser Asp His Gly Met Glu Gln Gly Ser Cys Lys Lys Tyr Ile Tyr 440 445 Leu Asn Lys Tyr Leu Gly Asp Val Lys Asn Ile Lys Val Ile Tyr Gly 455 460 Pro Ala Ala Arg Leu Arg Pro Ser Asp Val Pro Asp Lys Tyr Tyr Ser

```
470
                             475
Phe Asn Tyr Glu Gly Ile Ala Arg Asn Leu Ser Cys Arg Glu Pro Asn
           485
                490
Gln His Phe Lys Pro Tyr Leu Lys His Phe Leu Pro Lys Arg Leu His
        500 505 510
Phe Ala Lys Ser Asp Arg Ile Glu Pro Leu Thr Phe Tyr Leu Asp Pro
     515 520 525
Gln Trp Gln Leu Ala Leu Asn Pro Ser Glu Arg Lys Tyr Cys Gly Ser
  530 535 540
Gly Phe His Gly Ser Asp Asn Val Phe Ser Asn Met Gln Ala Leu Phe
            550
                  555
Val Gly Tyr Gly Pro Gly Phe Lys His Gly Ile Glu Ala Asp Thr Phe
           565 570 575
Glu Asn Ile Glu Val Tyr Asn Leu Met Cys Asp Leu Leu Asn Leu Thr
        580
                       585
Pro Ala Pro Asn Asn Gly Thr His Gly Ser Leu Asn His Leu Leu Lys
                    600
Asn Pro Val Tyr Thr Pro Lys His Pro Lys Glu Val His Pro Leu Val
                 615
                                 620
Gln Cys Pro Phe Thr Arg Asn Pro Arg Asp Asn Leu Gly Cys Ser Cys
     630
                              635
Asn Pro Ser Ile Leu Pro Ile Glu Asp Phe Gln Thr Gln Phe Asn Leu
                           650 655
Thr Val Ala Glu Glu Lys Ile Ile Lys His Glu Thr Leu Pro Tyr Gly
                        665
Arg Pro Arg Val Leu Gln Lys Glu Asn Thr Ile Cys Leu Leu Ser Gln
                    680
His Gln Phe Met Ser Gly Tyr Ser Gln Asp Ile Leu Met Pro Leu Trp
                695
Thr Ser Tyr Thr Val Asp Arg Asn Asp Ser Phe Ser Thr Glu Asp Phe
               710 715
Ser Asn Cys Leu Tyr Gln Asp Phe Arg Ile Pro Leu Ser Pro Val His
           725 730 735
Lys Cys Ser Phe Tyr Lys Asn Asn Thr Lys Val Ser Tyr Gly Phe Leu
             745
Ser Pro Pro Gln Leu Asn Lys Asn Ser Ser Gly Ile Tyr Ser Glu Ala
                                    765
                    760
Leu Leu Thr Thr Asn Ile Val Pro Met Tyr Gln Ser Phe Gln Val Ile
                 775
                                 780
Trp Arg Tyr Phe His Asp Thr Leu Leu Arg Lys Tyr Ala Glu Glu Arg
              790
                              795
Asn Gly Val Asn Val Val Ser Gly Pro Val Phe Asp Phe Asp Tyr Asp
         805 810
Gly Arg Cys Asp Ser Leu Glu Asn Leu Arg Gln Lys Arg Arg Val His
       820 825 830
Pro Val Thr Gln Glu Asn Phe Trp Ile Pro Asn Ser Thr Ser Phe Tyr
     835 840 845
Val Val Leu Thr Ser Cys Lys Asp Thr Ser Gln Thr Pro Leu His Cys
  850 855
                              860
Glu Asn Leu Asp Thr Leu Gly Phe Pro Phe Cys Leu His Arg Asp Trp
865 870 875
Ile Asn Ser Glu Thr Cys Val His Gly Lys His Asp Ser Ser Trp Val
                          890
Glu Glu Phe Val Lys Cys Leu His Arg Ala Arg Ile Thr Gly Cys Xaa
                       905
Gly Thr Ser Leu Gly Leu Ser Phe Tyr Gln Gln Arg Lys Glu Pro Val
                    920 925
Ser Asp Ile Leu Lys Leu Lys Thr His Leu Pro Thr Phe Ser Gln Glu
                 935
                                940
Asp
945
```

<210> 1103

<211> 217 <212>Amino acid <213> Homo sapiens

<400> 1103 Thr Val Pro Pro Pro Pro Gly Gly Pro Ser Pro Ala Pro Leu His Pro 1 5 10 15 Lys Arg Ser Pro Thr Ser Thr Gly Glu Ala Glu Leu Lys Glu Glu Arg 20 25 Leu Pro Gly Arg Lys Ala Ser Cys Ser Thr Ala Gly Ser Gly Ser Arg 35 40 Gly Leu Pro Pro Leu Ser Pro Met Val Ser Ser Ala His Asn Pro Asn 55 Lys Ala Glu Ile Pro Glu Arg Arg Lys Asp Ser Thr Ser Thr Pro Asn 65 70 Asn Leu Pro Pro Ser Met Met Thr Arg Arg Asn Thr Tyr Val Cys Thr 90 Glu Arg Pro Gly Ala Glu Arg Pro Ser Leu Leu Pro Asn Gly Lys Glu 100 105 110 Asn Ser Ser Gly Thr Pro Arg Val Pro Pro Ala Ser Pro Ser Ser His 115 120 125 Ser Leu Ala Pro Pro Ser Gly Glu Arg Ser Arg Leu Ala Arg Gly Ser 135 140 Thr Ile Arg Ser Thr Phe His Gly Gly Gln Val Arg Asp Arg Arg Ala 150 155 Gly Gly Trp Gly Trp Phe Phe Asn Lys His Ala Leu Gln Arg Ala Pro 165 170 Arg Asn Ala Gly Ala Pro Ser Leu Met Pro Gly His Arg Thr Val Leu 180 185 Ile Asn Tyr Gly Gly Gly Gln Asp Leu Lys Asn Trp Glu Thr Cys Leu 200 195

215 217

<210> 1104 <211> 436 <212>Amino acid <213> Homo sapiens

Ala Ala Pro Pro Asn Lys His Arg Arg

<400> 1104

His Thr Leu His His Ser Ser Pro Thr Ser Glu Ala Glu Glu Phe Val 5 10 Ser Arg Leu Ser Thr Gln Asn Tyr Phe Arg Ser Leu Pro Arg Gly Thr 25 Ser Asn Met Thr Tyr Gly Thr Phe Asn Phe Leu Gly Gly Arg Leu Met 40 Ile Pro Asn Thr Gly Ile Ser Leu Leu Ile Pro Pro Asp Ala Ile Pro 55 Arg Gly Lys Ile Tyr Glu Ile Tyr Leu Thr Leu His Lys Pro Glu Asp 70 75 Val Arg Leu Pro Leu Ala Gly Cys Gln Thr Leu Leu Ser Pro Ile Val 85 90 Ser Cys Gly Pro Pro Gly Val Leu Leu Thr Arg Pro Val Ile Leu Gly 105 Met Asp His Cys Gly Glu Pro Ser Pro Asp Ser Trp Ser Leu Arg Leu

```
120
Lys Lys Gln Ser Cys Glu Gly Ser Trp Glu Asp Val Leu His Leu Gly
               135
Glu Glu Ala Pro Ser His Leu Tyr Tyr Cys Gln Leu Glu Ala Ser Ala
             150 155
Cys Tyr Val Phe Thr Glu Gln Leu Ser Arg Tyr Ala Leu Val Gly Glu
             165 170
Ala Leu Ser Val Ala Ala Ala Lys Arg Leu Lys Leu Leu Leu Phe Ala
          180 185
                                              190
Pro Val Ala Cys Thr Ser Leu Glu Tyr Asn Ile Leu Val Tyr Cys Leu
                      200
                                           205
His Asp Thr His Asp Ala Leu Asn Val Val Val Gln Leu Glu Lys Gln
                     215
                                       220
Leu Gln Gly Gln Leu Ile Gln Glu Pro Leu Val Leu His Phe Lys Asp
                 230
                                   235
Ser Tyr His Asn Leu Arg Leu Ser Ile His Asp Val Pro Ser Ser Leu
              245
                                250
Trp Lys Ser Lys Leu Leu Val Ser Tyr Gln Glu Ile Pro Phe Tyr His
          260
                            265
                                              270
Ile Trp Asn Gly Thr Gln Arg Tyr Leu His Cys Thr Phe Thr Leu Glu
                         280
Arg Val Ser Pro Ser Thr Ser Asp Leu Ala Cys Lys Leu Trp Val Trp
   290 295
Gln Val Glu Gly Asp Gly Gln Ser Phe Ser Ile Asn Phe Asn Ile Thr
                 310
                                   315
Lys Asp Thr Arg Phe Ala Glu Leu Leu Ala Leu Glu Ser Glu Ala Gly
              325
                                330
Val Pro Ala Leu Val Gly Pro Ser Ala Phe Lys Ile Pro Phe Leu Ile
          340
                            345
                                              350
Arg Gln Lys Ile Ile Ser Ser Leu Asp Pro Pro Cys Arg Arg Gly Ala
                        360
                                          365
Asp Trp Arg Thr Leu Ala Gln Lys Leu His Leu Asp Ser His Leu Ser
                    375
                                       380
Phe Phe Ala Ser Lys Pro Ser Pro Thr Ala Met Ile Leu Asn Leu Trp
                 390
                                  395
Glu Ala Arg His Phe Pro Asn Gly Asn Leu Ser Gln Leu Ala Ala Ala
             405
                             410
Val Ala Gly Thr Gly Pro Ala Gly Arg Trp Leu Leu Ser Gln Cys Ser
Glu Ala Glu Cys
      435 436
```

<210> 1105 <211> 113

<212>Amino acid

<213> Homo sapiens

SET ARG ILE AGG Gly Met ARG Lys Leu Ser Pro Pro Gln Lys Lys Ser 100 100 105 110 Val 113

<210> 1106 <211> 464 <212>Amino acid <213> Homo sapiens

<400> 1106 Ile Met Leu Asp Gly Arg Val Arg Trp Leu Thr Pro Val Ile Ser Ala 10 Leu Trp Glu Ala Glu Met Glu Asp Val Ile Ala Arg Met Gln Asp Glu 20 25 Lys Asn Gly Ile Pro Ile Arg Thr Val Lys Ser Phe Leu Ser Lys Ile 4.0 Pro Ser Val Phe Ser Gly Ser Asp Ile Val Gln Trp Leu Ile Lys Asn 55 Leu Thr Ile Glu Asp Pro Val Glu Ala Leu His Leu Gly Thr Leu Met 70 75 Ala Ala His Gly Tyr Phe Phe Pro Ile Ser Asp His Val Leu Thr Leu 85 90 Lys Asp Asp Gly Thr Phe Tyr Arg Phe Gln Thr Pro Tyr Phe Trp Pro 100 1.05 Ser Asn Cys Trp Glu Pro Glu Asn Thr Asp Tyr Ala Val Tyr Leu Cys 115 120 Lys Arg Thr Met Gln Asn Lys Ala Arg Leu Glu Leu Ala Asp Tyr Glu 135 Ala Glu Ser Leu Ala Arg Leu Gln Arg Ala Phe Ala Arg Lys Trp Glu 150 Phe Ile Phe Met Gln Ala Glu Ala Gln Ala Lys Val Asp Lys Lys Arq 165 170 175 Asp Lys Ile Glu Arg Lys Ile Leu Asp Ser Gln Glu Arg Ala Phe Trp 185 Asp Val His Arg Pro Val Pro Gly Cys Val Asn Thr Thr Glu Val Asp 200 Ile Lys Lys Ser Ser Arg Met Arg Asn Pro His Lys Thr Arg Lys Ser 215 220 Val Tyr Gly Leu Gln Asn Asp Ile Arg Ser His Ser Pro Thr His Thr 230 235 Pro Thr Pro Glu Thr Lys Pro Pro Thr Glu Asp Glu Leu Gln Gln Gln 250 255 Ile Lys Tyr Trp Gln Ile Gln Leu Asp Arg His Arg Leu Lys Met Ser 265 Lys Val Ala Asp Ser Leu Leu Ser Tyr Thr Glu Gln Tyr Leu Glu Tyr 280 Asp Pro Phe Leu Leu Pro Pro Asp Pro Ser Asn Pro Trp Leu Ser Asp 290 . 295 Asp Thr Thr Phe Trp Glu Leu Glu Ala Ser Lys Glu Pro Ser Gln Gln 310 315 Arg Val Lys Arg Trp Gly Phe Gly Met Asp Glu Ala Leu Lys Asp Pro 325 330 Val Gly Arg Glu Gln Phe Leu Lys Phe Leu Glu Ser Glu Phe Ser Ser 345 Glu Asn Leu Arg Phe Trp Leu Ala Val Glu Asp Leu Lys Lys Arg Pro 360 365 Ile Lys Glu Val Pro Ser Arg Val Gln Glu Ile Trp Gln Glu Phe Leu

633

<210> 1107 <211> 153 <212>Amino acid <213> Homo sapiens

<400> 1107 Gly Thr Arg Asp Tyr Pro Arg Ile Val Asn His Leu Asp His Thr Tyr 5 Val Thr Ala Pro Gln Ala Phe Met Met Phe Gln Tyr Phe Val Lys Val Val Pro Thr Val Tyr Met Lys Val Asp Gly Glu Val Leu Thr Thr Asn 40 Gln Ile Tyr Val Thr Arg His Glu Lys Ala Ala Tyr Val Leu Met Gly 55 Asp Gln Gly Leu Pro Gly Val Phe Ile Leu Tyr Glu Leu Ser Pro Met 70 Met Val Asn Leu Thr Glu Ile His Thr Phe Phe Ser Leu Phe Leu Thr 90 Ile Val Gly Ala Thr Ile Gly Gly Met Phe Phe Glu His Phe Val Ile 105 Asn Tyr Leu Thr His Lys Trp Gly Leu Gly Phe Tyr Phe Lys Asn Glu 120 125 Asn Ser Leu Gln Gly Gly His Arg Thr Leu Tyr Gly Val Asn Phe Phe 135 140 Met Tyr Trp Ser Leu Arg Gly Gly Ser 150

<210> 1108 <211> 506 <212>Amino acid <213> Homo sapiens

c400> 1108 Ser Val Trp Asn Ser Gln Arg Gln Phe Val Val Arg Ala Trp Gly 1 10 15 15 Cys Ala Gly Pro Cys Gly Arg Ala Val Phe Leu Ala Phe Gly Leu Gly 2 25 30 Leu Gly Leu Ile Glu Glu Lys Gln Ala Glu Ser Arg Arg Ala Val Ser 3 45 Ala Cys Gln Glu Ile Gln Ala Ile Phe Thr Gln Lys Ser Lys Pro Gly

```
55
Pro Asp Pro Leu Asp Thr Arg Arg Leu Gln Gly Phe Arg Leu Glu Glu
           70
                                  75
Tyr Leu Ile Gly Gln Ser Ile Gly Lys Gly Cys Ser Ala Ala Val Tyr
              85
                               90
Glu Ala Thr Met Pro Thr Leu Pro Gln Asn Leu Glu Val Thr Lys Ser
        100 105
Thr Gly Leu Leu Pro Gly Arg Gly Pro Gly Thr Ser Ala Pro Gly Glu
      115 120 125
Gly Gln Glu Arg Ala Pro Gly Ala Pro Ala Phe Pro Leu Ala Ile Lys
        135
Met Met Trp Asn Ile Ser Ala Gly Ser Ser Ser Glu Ala Ile Leu Asn
                 150
                                 155
Thr Met Ser Gln Glu Leu Val Pro Ala Ser Arg Val Ala Leu Ala Gly
                              170 175
Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg Gly Pro Lys Gln
                          185
Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg Ala Phe Thr Ser
                     200 - 205
Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr Pro Asp Val Leu
                 215
                                     220
Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly Arg Thr Leu Phe
                230
                                 235
Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln Tyr Leu Cys Val
             245 250
Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu Leu Gln Leu Leu
                          265 270
Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala His Arg Asp Leu
      275 280
Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp Gly Cys Pro Trp
         295
Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp Glu Ser Ile Gly
                310
                                 315
Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg Gly Gly Asn Gly
             325
                              330
Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro Gly Pro Arg Ala
         340
                          345
Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val Gly Ala Ile Ala
      355
                       360
Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly Gln Gly Lys Ala
                 375
                                     380
His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu Pro Ala Leu Pro
                390
                                 395
Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg Ala Leu Leu Gln
                              410
Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala Ala Asn Val Leu
                          425
His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu Lys Asn Leu Lys
                       440
Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser Ala Ala Thr Leu
                   455
                                     460
Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu Thr Lys Met Lys
                470
                                 475
Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu Cys Gln Ala Ala
             485
                             490
Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
         500
```

<210> 1109 <211> 382 <212>Amino acid <213> Homo sapiens

```
<400> 1109
Arg Pro Leu Leu Arg Leu Ala Glu Leu Pro Asp His Cys Tyr Arg Met
1 5
                            10
Asn Ser Ser Pro Ala Gly Thr Pro Ser Pro Gln Pro Ser Arg Ala Asn
    20
                         25
Gly Asn Ile Asn Leu Gly Pro Ser Ala Asn Pro Asn Ala Gln Pro Thr
   35
                     40
Asp Phe Asp Phe Leu Lys Val Ile Gly Lys Gly Asn Tyr Gly Lys Val
                  55
Leu Leu Ala Lys Arg Lys Ser Asp Gly Ala Phe Tyr Ala Val Lys Val
               70
                               75
Leu Gln Lys Lys Ser Ile Leu Lys Lys Lys Glu Gln Ser His Ile Met
            85
                            90
Ala Glu Arg Ser Val Leu Leu Lys Asn Val Arg His Pro Phe Leu Val
                        105 110
        100
Gly Leu Arg Tyr Ser Phe Gln Thr Pro Glu Lys Leu Tyr Phe Val Leu
     115
                     120
                                    125
Asp Tyr Val Asn Gly Gly Glu Leu Phe Phe His Leu Gln Arg Glu Arg
                  135
                                  140
Arg Phe Leu Glu Pro Arg Ala Arg Phe Tyr Ala Ala Glu Val Ala Ser
            150 155
Ala Ile Gly Tyr Leu His Ser Leu Asn Ile Ile Tyr Arg Asp Leu Lys
           165 170
Pro Glu Asn Ile Leu Leu Asp Cys Gln Gly His Val Val Leu Thr Asp
                        185 190
        180
Phe Gly Leu Cys Lys Glu Gly Val Glu Pro Glu Asp Thr Thr Ser Thr
      195
                     200
                                    205
Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Arg Lys Glu
         215 220
Pro Tyr Asp Arg Ala Val Asp Trp Trp Cys Leu Gly Ala Val Leu Tyr
            230 235
Glu Met Leu His Gly Leu Pro Pro Phe Tyr Ser Gln Asp Val Ser Gln
           245 250 255
Met Tyr Glu Asn Ile Leu His Gln Pro Leu Gln Ile Pro Gly Gly Arg
        260 265 270
Thr Val Ala Ala Cys Asp Leu Leu Gln Ser Leu Leu His Lys Asp Gln
     275 280 285
Arg Gln Arg Leu Gly Ser Lys Ala Asp Phe Leu Glu Ile Lys Asn His
                  295 300
Val Phe Phe Ser Pro Ile Asn Trp Asp Asp Leu Tyr His Lys Arg Leu
              310 315
Thr Pro Pro Phe Asn Pro Asn Val Thr Gly Pro Ala Asp Leu Lys His
           325 330
Phe Asp Pro Glu Phe Thr Gln Glu Ala Val Ser Lys Ser Ile Gly Cys
                       345
Thr Pro Asp Thr Val Ala Ser Ser Ser Gly Ala Ser Ser Ala Phe Leu
                     360
Gly Phe Ser Tyr Ala Pro Glu Asp Asp Asp Ile Leu Asp Cys
                  375
```

<210> 1110

<211> 535

<212>Amino acid

<213> Homo sapiens

<400> 1110 Arg Pro Gln Thr Leu Lys Gly His Gln Glu Lys Ile Arg Gln Arg Gln 10 Ser Ile Leu Pro Pro Pro Gln Gly Pro Ala Pro Ile Pro Phe Gln His 20 25 Arg Gly Gly Asp Ser Pro Glu Ala Lys Asn Arg Val Gly Pro Gln Val 40 Pro Leu Ser Glu Pro Gly Phe Arg Arg Arg Glu Ser Gln Glu Glu Pro 55 Arg Ala Val Leu Ala Gln Lys Ile Glu Lys Glu Thr Gln Ile Leu Asn 70 75 Cys Ala Leu Asp Asp Ile Glu Trp Phe Val Ala Arg Leu Gln Lys Ala 85 90 Ala Glu Ala Phe Lys Gln Leu Asn Gln Arg Lys Lys Gly Lys Lys 100 105 Gly Lys Lys Ala Pro Ala Glu Gly Val Leu Thr Leu Arg Ala Arg Pro 120 125 Pro Ser Glu Gly Glu Phe Ile Asp Cys Phe Gln Lys Ile Lys Leu Ala 135 140 Ile Asn Leu Leu Ala Lys Leu Gln Lys His Ile Gln Asn Pro Ser Ala 150 155 Ala Glu Leu Val His Phe Leu Phe Gly Pro Leu Asp Leu Ile Val Asn 170 175 Thr Cys Ser Gly Pro Asp Ile Ala Arg Ser Val Ser Cys Pro Leu Leu 180 185 Ser Arg Asp Ala Val Asp Phe Leu Arg Gly His Leu Val Pro Lys Glu 200 Met Ser Leu Trp Glu Ser Leu Gly Glu Ser Trp Met Arg Pro Arg Ser 215 220 Glu Trp Pro Arg Glu Pro Gln Val Pro Leu Tyr Val Pro Lys Phe His 230 235 Ser Gly Trp Glu Pro Pro Val Asp Val Leu Gln Glu Ala Pro Trp Glu Val Glu Gly Leu Ala Ser Ala Pro Ile Glu Glu Val Ser Pro Val Ser 265 Arg Gln Ser Ile Arg Asn Ser Gln Lys His Ser Pro Thr Ser Glu Pro Thr Pro Pro Gly Asp Ala Leu Pro Pro Val Ser Ser Pro His Thr His 295 300 Arg Gly Tyr Gln Pro Thr Pro Ala Met Ala Lys Tyr Val Lys Ile Leu 310 315 Tyr Asp Phe Thr Ala Arg Asn Ala Asn Glu Leu Ser Val Leu Lys Asp 325 330 Glu Val Leu Glu Val Leu Glu Asp Gly Arg Gln Trp Trp Lys Leu Arg 340 345 Ser Arg Ser Gly Gln Ala Gly Tyr Val Pro Cys Asn Ile Leu Gly Glu 355 360 . 365 Ala Arg Pro Glu Asp Ala Gly Ala Pro Phe Glu Gln Ala Gly Gln Lys 375 380 Tyr Trp Gly Pro Ala Ser Pro Thr His Lys Leu Pro Pro Ser Phe Pro 390 395 Gly Asn Lys Asp Glu Leu Met Gln His Met Asp Glu Val Asn Asp Glu 405 410 Leu Ile Arg Lys Ile Ser Asn Ile Arg Ala Gln Pro Gln Arg His Phe 425 Arg Val Glu Arg Ser Gln Pro Val Ser Gln Pro Leu Thr Tyr Glu Ser 440 Gly Pro Asp Glu Val Arg Ala Trp Leu Glu Ala Lys Ala Phe Ser Pro 455 460 Arg Ile Val Glu Asn Leu Gly Ile Leu Thr Gly Pro Gln Leu Phe Ser 475 Leu Asn Lys Glu Glu Leu Lys Lys Val Cys Gly Glu Glu Gly Val Arg 490 Val Tyr Ser Gln Leu Thr Met Gln Lys Ala Phe Leu Glu Lys Gln Gln

500 505 510
Ser Gly Ser Glu Leu Glu Glu Leu Met Asn Lys Phe His Ser Met Asn
515 525 525
Gln Arg Arg Gly Glu Asp Ser 536

<210> 1111
<211> 346
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(346)
<223> X = any amino acid or stop code

<400> 1111 Ala Trp His Glu Gly Leu Val Ser Ser Pro Ala Ile Gly Ala Tyr Leu 10 Ser Ala Ser Tyr Gly Asp Ser Leu Val Val Leu Val Ala Thr Val Val 25 Ala Leu Leu Asp Ile Cys Phe Ile Leu Val Ala Val Pro Glu Ser Leu 40 Pro Glu Lys Met Arg Pro Val Ser Trp Gly Ala Gln Ile Ser Trp Lys 55 Gln Ala Asp Pro Phe Ala Ser Leu Lys Lys Val Gly Lys Asp Ser Thr 70 75 Val Leu Leu Ile Cys Ile Thr Val Cys Leu Ser Tyr Leu Pro Glu Ala 90 8.5 Gly Gln Tyr Ser Ser Phe Phe Leu Tyr Leu Arg Gln Val Ile Gly Phe 105 Gly Ser Val Lys Ile Ala Ala Phe Ile Ala Met Val Gly Ile Leu Ser 120 125 Ile Val Ala Gln Thr Ala Phe Leu Ser Ile Leu Met Arg Ser Leu Glv 135 Asn Lys Asn Thr Val Leu Leu Gly Leu Gly Phe Gln Met Leu Gln Leu 150 155 Ala Trp Tyr Gly Phe Gly Ser Gln Ala Trp Met Met Trp Ala Ala Gly 165 170 Thr Val Ala Ala Met Ser Ser Ile Thr Phe Pro Ala Ile Ser Ala Leu 180 185 Val Ser Arg Asn Ala Glu Ser Asp Gln Gln Gly Val Ala Gln Gly Ile 200 Ile Thr Gly Ile Arg Gly Leu Cys Asn Gly Leu Gly Pro Ala Leu Tyr 215 220 Gly Phe Ile Phe Tyr Met Phe His Val Glu Leu Thr Glu Leu Gly Pro 230 235 Lys Leu Asn Ser Asn Asn Val Pro Leu Gln Gly Ala Val Ile Pro Gly 245 250 Pro Pro Phe Leu Phe Gly Ala Cys Ile Val Leu Met Ser Phe Leu Ala 265 Ala Leu Phe Ile Pro Glu Tyr Ser Lys Ala Ser Gly Val Gln Lys His 280 Ser Asn Ser Ser Ser Gly Ser Leu Thr Asn Thr Pro Glu Arg Gly Ser 295 300 Asp Glu Asp Ile Glu Pro Leu Leu Gln Asp Ser Ser Ile Trp Glu Leu 310 31.5 Ser Ser Phe Glu Glu Pro Gly Asn Gln Cys Thr Glu Leu Xaa Thr Arg 325

Gln Lys Val Gly Phe Cys Ile Arg His Leu 340 345 346

> <210> 1112 <211> 647 <212>Amino acid <213> Homo sapiens

<400> 1112 Met Ala Ala Gly Leu Ala Thr Trp Leu Pro Phe Ala Arg Ala Ala Ala 10 Val Gly Trp Leu Pro Leu Ala Gln Gln Pro Leu Pro Pro Ala Pro Gly 20 25 Val Lys Ala Ser Arg Gly Asp Glu Val Leu Val Val Asn Val Ser Gly 40 Arg Arg Phe Glu Thr Trp Lys Asn Thr Leu Asp Arg Tyr Pro Asp Thr 55 Leu Leu Gly Ser Ser Glu Lys Glu Phe Phe Tyr Asp Ala Asp Ser Gly 70 75 Glu Tyr Phe Phe Asp Arg Asp Pro Asp Met Phe Arg His Val Leu Asn 85 90 Phe Tyr Arg Thr Gly Arg Leu His Cys Pro Arg Gln Glu Cys Ile Gln 100 105 Ala Phe Asp Glu Glu Leu Ala Phe Tyr Gly Leu Val Pro Glu Leu Val 115 120 Gly Asp Cys Cys Leu Glu Glu Tyr Arg Asp Arg Lys Lys Glu Asn Ala 135 140 Glu Arg Leu Ala Glu Asp Glu Glu Ala Glu Gln Ala Gly Asp Gly Pro 150 155 Ala Leu Pro Ala Gly Ser Ser Leu Arg Gln Arg Leu Trp Arg Ala Phe 165 170 Glu Asn Pro His Thr Ser Thr Ala Ala Leu Val Phe Tyr Tyr Val Thr 185 Gly Phe Phe Ile Ala Val Ser Val Ile Ala Asn Val Val Glu Thr Ile 200 Pro Cys Arg Gly Ser Ala Arg Arg Ser Ser Arg Glu Gln Pro Cys Gly 215 220 Glu Arg Phe Pro Gln Ala Phe Phe Cys Met Asp Thr Ala Cys Val Leu 230 235 Ile Phe Thr Gly Glu Tyr Leu Leu Arg Leu Phe Ala Ala Pro Ser Arg 245 250 Cys Arg Phe Leu Arg Ser Val Met Ser Leu Ile Asp Val Val Ala Ile 265 Leu Pro Tyr Tyr Ile Gly Leu Leu Val Pro Lys Asn Asp Asp Val Ser 280 Gly Ala Phe Val Thr Leu Arg Val Phe Arg Val Phe Arg Ile Phe Lys 295 Phe Ser Arg His Ser Gln Gly Leu Arg Ile Leu Gly Tyr Thr Leu Lys 310 315 Ser Cys Ala Ser Glu Leu Gly Phe Leu Leu Phe Ser Leu Thr Met Ala 325 330 Ile Ile Ile Phe Ala Thr Val Met Phe Tyr Ala Glu Lys Gly Thr Asn 345 Lys Thr Asn Phe Thr Ser Ile Pro Ala Ala Phe Trp Tyr Thr Ile Val 360 Thr Met Thr Thr Leu Gly Tyr Gly Asp Met Val Pro Ser Thr Ile Ala 375 380 Gly Lys Ile Phe Gly Ser Ile Cys Ser Leu Ser Gly Val Leu Val Ile

Ala Leu Pro Val Pro Val Ile Val Ser Asn Phe Ser Arg Ile Tyr His 405 410 Gln Asn Gln Arg Ala Asp Lys Arg Arg Ala Gln Gln Lys Val Arg Leu 420 425 Ala Arg Ile Arg Leu Ala Lys Ser Gly Thr Thr Asn Ala Phe Leu Gln 440 Tyr Lys Gln Asn Gly Gly Leu Glu Asp Ser Gly Ser Gly Glu Glu Gln 455 Ala Val Cys Val Arg Asn Arg Ser Ala Phe Glu Gln Gln His His His 470 475 Leu Leu His Cys Leu Glu Lys Thr Thr Cys His Glu Phe Thr Asp Glu 485 490 Leu Thr Phe Ser Glu Ala Leu Gly Ala Val Ser Pro Gly Gly Arg Thr 500 505 510 Ser Arg Ser Thr Ser Val Ser Ser Gln Pro Val Gly Pro Gly Ser Leu 520 Leu Ser Ser Cys Cys Pro Arg Arg Ala Lys Arg Arg Ala Ile Arg Leu 535 540 Ala Asn Ser Thr Ala Ser Val Ser Arg Gly Ser Met Gln Glu Leu Asp 550 555 Met Leu Ala Gly Leu Arg Arg Ser His Ala Pro Gln Ser Arg Ser Ser 565 570 Leu Asn Ala Lys Pro His Asp Ser Leu Asp Leu Asn Cys Asp Ser Gly 580 585 Asp Phe Val Ala Ala Ile Ile Ser Ile Pro Thr Pro Pro Ala Asn Thr 600 Pro Asp Glu Ser Gln Pro Ser Ser Pro Gly Gly Gly Gly Arg Ala Gly 615 620 Ser Thr Leu Arg Asn Ser Ser Leu Gly Thr Pro Cys Leu Phe Pro Glu 630 635 Thr Val Lys Ile Ser Ser Leu 645 647

<210> 1113 <211> 220 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(220)
<223> X = any amino acid or stop code

<400> 1113 Gly Trp Gly Lys Pro Phe Lys Asp Trp Thr Thr Gly Gly Gln Asp Thr 10 Gly Gly Glu Pro Ala Leu Leu Val Gly Ala Gly Glu Gly Arg Ala Pro Arg Leu Asn Cys Pro Ser Gly Gln Ile Arg Ser Pro Gly Pro Gly Asp 40 Leu Ser Ile Tyr Asp Asn Trp Ile Arg Tyr Phe Asn Arg Ser Ser Pro 55 Val Tyr Gly Leu Val Pro Arg Ser Lys Thr Ser Ala Arg Ile Tyr Pro 70 75 Thr Tyr His Thr Ala Phe Asp Thr Phe Asp Tyr Val Asp Lys Phe Leu 85 90 Asp Pro Gly Glu Glu Gly Asp Lys Gly His Pro Glu Thr Arg Thr Gly 100 105 Glu Ala Glu Asp Xaa Ala Leu Ala Leu Ser Pro Cys Arg Arg Phe Ser

<210> 1114 <211> 382 <212>Amino acid <213> Homo sapiens

<400> 1114 Gly Ile Arg Gly Gly Gly Ser Leu Ala Ser Gly Gly Pro Gly Pro Gly 10 His Ala Ser Leu Ser Gln Arg Leu Arg Leu Tyr Leu Ala Asp Ser Trp 25 Asn Gln Cys Asp Leu Val Ala Leu Thr Cys Phe Leu Leu Gly Val Gly 35 40 Cys Arg Leu Thr Pro Gly Leu Tyr His Leu Gly Arg Thr Val Leu Cys 55 Ile Asp Phe Met Val Phe Thr Val Arg Leu Leu His Ile Phe Thr Val 70 75 Asn Lys Gln Leu Gly Pro Lys Ile Val Ile Val Ser Lys Met Met Lys Asp Val Phe Phe Leu Phe Phe Leu Gly Val Trp Leu Val Ala Tyr 105 Gly Val Ala Thr Glu Gly Leu Leu Arg Pro Arg Asp Ser Asp Phe Pro 120 Ser Ile Leu Arg Arg Val Phe Tyr Arg Pro Tyr Leu Gln Ile Phe Gly 135 140 Gln Ile Pro Gln Glu Asp Met Asp Val Ala Leu Met Glu His Ser Asn 150 155 Cys Ser Ser Glu Pro Gly Phe Trp Ala His Pro Pro Gly Ala Gln Ala 165 170 Gly Thr Cys Val Ser Gln Tyr Ala Asn Trp Leu Val Val Leu Leu Leu 185 Val Ile Phe Leu Leu Val Ala Asn Ile Leu Leu Val Asn Leu Leu Ile 200 Ala Met Phe Ser Tyr Thr Phe Gly Lys Val Gln Gly Asn Ser Asp Leu 215 220 Tyr Trp Lys Ala Gln Arg Tyr Arg Leu Ile Arg Glu Phe His Ser Arg 230 235 Pro Ala Leu Ala Pro Pro Phe Ile Val Ile Ser His Leu Arg Leu Leu 245 250 Leu Arg Gln Leu Cys Arg Arg Pro Arg Ser Pro Gln Pro Ser Ser Pro 265 Ala Leu Glu His Phe Arg Val Tyr Leu Ser Lys Glu Ala Glu Arg Lys 280 285 Leu Leu Thr Trp Glu Ser Val His Lys Glu Asn Phe Leu Leu Ala Arg 295 300 Ala Arg Asp Lys Arg Glu Ser Asp Ser Glu Arg Leu Lys Arg Thr Ser

305 310 315 320
Gln Lys Val Asp Leu Ala Leu Lys Gln Leu Gly His Ile Arg Glu Tyr
225
Glu Gln Arg Leu Lys Val Leu Glu Arg Glu Val Gln Gln Cys Ser Arg
340 345 350
Val Leu Gly Trp Val Ala Glu Ala Leu Ser Arg Ser Ala Leu Leu Pro
350 365
Fro Gly Gly Pro Pro Pro Pro Asp Leu Pro Gly Ser Lys Asp
370 360 365

<210> 1115 <211> 109 <212>Amino acid

<213> Homo sapiens

<400> 1115 Leu Ile Lys Leu Cys Lys Ser Lys Ala Lys Ser Cys Glu Asn Asp Leu 5 1.0 15 Glu Met Gly Met Leu Asn Ser Lys Phe Lys Lys Thr Arg Tyr Gln Ala 20 25 Gly Met Arg Asn Ser Glu Asn Leu Thr Ala Asn Asn Thr Leu Ser Lys 40 Pro Thr Arg Tyr Gln Gly Glu Leu Lys Glu Ile Lys Gln Asp Ile Ser 55 Ser Leu Arg Tyr Glu Leu Leu Glu Glu Lys Ser Gln Ala Thr Gly Glu 70 75 Leu Ala Asp Leu Ile Gln Gln Leu Ser Glu Lys Phe Gly Lys Asn Leu 8.5 90 Asn Lys Asp His Leu Arg Val Asn Lys Gly Lys Asp Ile 105

<210> 1116 <211> 679 <212>Amino acid <213> Homo sapiens

<400> 1116 Leu Pro Leu His Ala Gly Phe Asn Arg Arg Phe Met Glu Asn Ser Ser Ile Ile Ala Cys Tyr Asn Glu Leu Ile Gln Ile Glu His Gly Glu 25 Val Arg Ser Gln Phe Lys Leu Arg Ala Cys Asn Ser Val Phe Thr Ala 40 Leu Asp His Cys His Glu Ala Ile Glu Ile Thr Ser Asp Asp His Val 55 Ile Gln Tyr Val Asn Pro Ala Phe Glu Arg Met Met Gly Tyr His Lys 70 Gly Glu Leu Leu Gly Lys Glu Leu Ala Asp Leu Pro Lys Ser Asp Lys Asn Arg Ala Asp Leu Leu Asp Thr Ile Asn Thr Cys Ile Lys Lys Gly 100 105 110 Lys Glu Trp Gln Gly Val Tyr Tyr Ala Arg Arg Lys Ser Gly Asp Ser 120 Ile Gln Gln His Val Lys Ile Thr Pro Val Ile Gly Gln Gly Gly Lys

	130														
						135					140				
Ile 145	Arg	His	Phe	Val	Ser 150	Leu	Lys	Lys	Leu	Cys 155	CÃ	Thr	Thr	Asp	Asn 160
Asn	Lys	Gln	Ile	His 165	Lys	Ile	His	Arg	Asp 170	Ser	Gly	Asp	Asn	Ser 175	
Thr	Glu	Pro	His 180		Phe	Arg	Tyr	Lys 185		Arg	Arg	Lys	Glu 190		Ile
Asp	Val	Lys 195		Ile	Ser	Ser	Arg 200		Ser	Asp	Ala	Pro 205		Leu	Gln
Asn	Arg 210		Tyr	Pro	Ser	Met 215		Arg	Ile	His	Ser 220		Thr	Ile	Glu
Ala 225	Pro	Ile	Thr	Lys	Val 230		Asn	Ile	Ile	Asn 235		Ala	Gln	Glu	Asn 240
Ser	Pro	Val	Thr	Val 245	Ala	Glu	Ala	Leu	Asp 250	Arg	Val	Leu	Glu	Ile 255	Leu
Arg	Thr	Thr	Glu 260	Leu	Tyr	Ser	Pro	Gln 265	Leu	Gly	Thr	Lys	Asp 270	Glu	Asp
	His	275					280					285	-		-
	Leu 290					295				-	300				
305	Ser				310					315					320
	Ser			325					330					335	
	Leu		340					345					350	_	
Lys		355	Ser				360					365	_		
	370		Arg			375					380				
385					390					395	_				400
	Ala			405					410					415	
	Asp -		420					425					430		_
		435	Arg				440					445			
	Val 450					455					460		`		
465	Ala	Pne	GIII	Leu	470	val	ьys	Asp	Thr	ьуs 475	cys	Asn	TTe	Pne	Lys 480
Asn	Ile	Asp	Arg	Gly 485		His	Tyr	Arg	Thr		Arg	Gln	Ala	Ile 495	
Asp	Met	Val	Leu 500	Ala	Thr	Glu	Met	Thr 505	Lys	His	Phe	Glu	His 510	Val	Asn
Lys	Phe	Val 515	Asn	Ser	Ile	Asn	Lys 520	Pro	Met	Ala	Ala	Glu 525	Ile	Glu	Gly
Ser	Asp 530	Cys	Glu	Сув	Asn	Pro 535	Ala	Gly	Lys	Asn	Phe 540	Pro	Glu	Asn	Gln
Ile 545	Leu	Ile	Lys	Arg	Met 550	Met	Ile	Lys	Cys	Ala 555	Asp	Val	Ala	Asn	Pro 560
	Arg			565					570					575	
			Ala 580					585					590		
	Met	595					600					605			
	Ser 610					615					620				
Ala 625	Phe	Ala	His	Leu	Pro 630	Ala	Leu	Met	Gln	His 635	Leu	Ala	Asp	Asn	Tyr 640
	His	Trp	Lys	Thr		Asp	Asp	Leu	Lys		Lys	Ser	Leu	Arg	

Pro Ser Asp Arg Leu Lys Pro Ser His Arg Gly Gly Leu Leu Thr Asp
660 665 665 670
Lys Gly His Cys Glu Ser Gln
675 679

<210> 1117 <211> 1193 <212>Amino acid <213> Homo sapiens

<400> 1117 Ala Phe Leu Ser Lys Val Glu Glu Asp Asp Tyr Pro Ser Glu Glu Leu 7.0 Leu Glu Asp Glu Asn Ala Ile Asn Ala Lys Arg Ser Lys Glu Lys Asn 2.0 Pro Gly Asn Gln Gly Arg Gln Phe Asp Val Asn Leu Gln Val Pro Asp 40 Arg Ala Val Leu Gly Thr Ile His Pro Asp Pro Glu Ile Glu Glu Ser 55 Lys Gln Glu Thr Ser Met Ile Leu Asp Ser Glu Lys Thr Ser Glu Thr 70 75 Ala Ala Lys Gly Val Asn Thr Gly Gly Arg Glu Pro Asn Thr Met Val Glu Lys Glu Arg Pro Leu Ala Asp Lys Lys Ala Gln Arg Pro Phe Glu 100 105 Arg Ser Asp Phe Ser Asp Ser Ile Lys Ile Gln Thr Pro Glu Leu Gly 120 Glu Val Phe Gln Asn Lys Asp Ser Asp Tyr Leu Lys Asn Asp Asn Pro 135 140 Glu Glu His Leu Lys Thr Ser Gly Leu Ala Gly Glu Pro Glu Gly Glu 150 155 Leu Ser Lys Glu Asp His Glu Asn Thr Glu Lys Tyr Met Gly Thr Glu 170 Ser Gln Gly Ser Ala Ala Ala Glu Pro Glu Asp Asp Ser Phe His Trp 185 Thr Pro His Thr Ser Val Glu Pro Gly His Ser Asp Lys Arg Glu Asp 200 Leu Leu Ile Ile Ser Ser Phe Phe Lys Glu Gln Gln Ser Leu Gln Arg 215 220 Phe Gln Lys Tyr Phe Asn Val His Glu Leu Glu Ala Leu Leu Gln Glu 235 Met Ser Ser Lys Leu Lys Ser Ala Gln Gln Glu Ser Leu Pro Tyr Asn 250 Met Glu Lys Val Leu Asp Lys Val Phe Arg Ala Ser Glu Ser Gln Ile 265 Leu Ser Ile Ala Glu Lys Met Leu Asp Thr Arg Val Ala Glu Asn Arg 280 Asp Leu Gly Met Asn Glu Asn Asn Ile Phe Glu Glu Ala Ala Val Leu 295 Asp Asp Ile Gln Asp Leu Ile Tyr Phe Val Arg Tyr Lys His Ser Thr 310 315 Ala Glu Glu Thr Ala Thr Leu Val Met Ala Pro Pro Leu Glu Glu Gly 325 330 Leu Gly Gly Ala Met Glu Glu Met Gln Pro Leu His Glu Asp Asn Phe 345 Ser Arg Glu Lys Thr Ala Glu Leu Asn Val Gln Val Pro Glu Glu Pro 360 Thr His Leu Asp Gln Arg Val Ile Gly Asp Thr His Ala Ser Glu Val

	370					375					200				
Ser		Lave	Pro	Δen	Thr		Tays	Acn	T.011	Asp	380 Pro	Glv	Pro	Va l	Thr
385					390					395					400
Thr	Glu	Asp	Thr		Met	Asp	Ala	Ile		Ala	Asn	Lys	Gln		Glu
m1			a1	405		-1-			410	_			_	415	
			420					425		Pro			430		
Leu	Leu	Ile 435	Tyr	Ser	Phe	Met	Phe 440	Tyr	Leu	Thr	Lys	Ser	Leu	Val	Ala
Thr	Leu 450	Pro	Asp	Asp	Val	Gln 455	Pro	Gly	Pro	Asp	Phe 460	тух	Gly	Leu	Pro
Trp	Lys	Pro	Val	Phe	Ile 470		Ala	Phe	Leu	Gly 475		Ala	Ser	Phe	Ala 480
	Phe	Leu	Trp	Arg 485		Val	Leu	Val	Val 490	Lys	Asp	Arg	Val	Tyr 495	
Val	Thr	Glu	Gln 500		Ile	Ser	Glu			Lys	Thr	Ile			Glu
Asn	Thr			Val	Gln	Lys		505 Ser	Asn	Tyr	Glu		510 Lys	Ile	Lys
Glu		515 Lys	Lys	His	Val		520 Glu	Thr	Arg	Lys	Gln	525 Asn	Met	Ile	Leu
	530	~ 1		** .		535		_			540	_,	_		_
545	Asp	GLU	Ala	TTE	ьув 550	Tyr	гув	Asp	гЛS	Ile 555	ьys	Thr	Leu	GIu	Lys 560
Asn	Gln	Glu	Ile	Leu 565	Asp	Asp	Thr	Ala	Lys 570	Asn	Leu	Arg	Val	Met 575	Leu
Glu	Ser	Glu	Arg 580	Glu	Gln	Asn	Val	Lys 585	Asn	Gln	Asp	Leu	Ile 590	Ser	Glu
Asn	Lys	Lys 595	Ser	Ile	Glu	Lys	Leu 600	Lys	Asp	Val	Ile	Ser 605	Met	Asn	Ala
Ser	Glu 610	Phe	Ser	Glu	Val	Gln 615	Ile	Ala	Leu	Asn	Glu 620	Ala	Lys	Leu	Ser
Glu 625	Glu	Lys	Val	Lys	Ser 630		Cys	His	Arg	Val 635		Glu	Glu	Asn	Ala 640
	Leu	Lys	Lys	Lys 645		Glu	Gln	Leu	Gln 650	Gln	Glu	Ile	Glu	Asp 655	
Ser	Lys	Leu	His 660		Glu	Leu	Ser	Glu 665		Ile	Lys	Ser	Phe 670		Lys
Ser	Gln	Lys 675		Leu	Glu	Val	Ala 680		Thr	His	Lys	Asp 685		Asn	Ile
Asn	Ala		Thr	Asn	Сув	Ile 695		Gln	Leu	Asn	Leu 700		Glu	Cys	Glu
Ser		Ser	Glu	Gly	Gln		Lys	Gly	Gly	Asn		Ser	Asp	Glu	Leu
705	_				710			_		715					720
				725					730	Glu				735	
Ile	Lys	Gln	Met 740	Met	Asp	Val	Ser	Arg 745	Thr	Gln	Thr	Ala	Ile 750	Ser	Val .
Val	Glu	Glu 755	Asp	Leu	Lys	Leu	Leu 760	Gln	Leu	Lys	Leu	Arg 765	Ala	Ser	Val
Ser	Thr 770	Lys	Cys	Asn	Leu	Glu 775		Gln	Val	Lys	Lys 780		Glu	Asp	Asp
Arg		Ser	Leu	Gln	Ala 790		Lys	Ala	Gly	Leu 795		Asp	Glu	Cys	Lys 800
Thr	Leu	Arg	Gln	Lys 805		Glu	Ile	Leu		Glu	Leu	Tyr	Gln		
Glu	Met	Ala			Lys	Lys	Leu		810 Gln	Glu	Glu	Tyr		815 Arg	Gln
Glu	Arg		820 His	Arg	Leu	Ser		825 Ala	Asp	Glu	Lys		830 Val	Ser	Ala
Ala	Glu	835 Glu	Val	Lys	Thr	Tyr	840 Lys	Arg	Arg	lle	Glu	845 Glu	Met	Glu	Asp
Glu	850 Leu	Gln	Lys	Thr	Glu	855 Arg	Ser	Phe	Lys	Asn	860 Gln	Ile	Ala	Thr	His
865					870					875					880
Glu	ьys	ьys	Ala	His	GIu	Asn	Trp	Leu	Lys	Ala	Arg	Ala	Ala	Glu	Arg

890 Ala Ile Ala Glu Glu Lys Arg Glu Ala Ala Asn Leu Arg His Lys Leu 905 Leu Asp Leu Thr Gln Lys Met Ala Met Leu Gln Glu Glu Pro Val Ile 915 920 Val Lys Pro Met Pro Gly Lys Pro Asn Thr Gln Asn Pro Pro Arg Arg 935 Gly Pro Leu Ser Gln Asn Gly Ser Phe Gly Pro Ser Pro Val Ser Gly 955 Gly Glu Cys Ser Pro Pro Leu Thr Val Glu Pro Pro Val Arg Pro Leu 965 970 Ser Ala Thr Leu Asn Arg Arg Asp Met Pro Arg Ser Glu Phe Gly Ser 980 985 Leu Asp Gly Pro Leu Pro His Pro Arg Trp Ser Ala Glu Ala Ser Gly 995 1000 1005 Lys Pro Ser Pro Ser Asp Pro Gly Ser Gly Thr Ala Thr Met Met Asn 1010 1015 1020 Ser Ser Ser Arg Gly Ser Ser Pro Thr Arg Val Leu Asp Glu Gly Lys 1025 1030 1035 Val Asn Met Ala Pro Lys Gly Pro Pro Pro Phe Pro Gly Val Pro Leu 1045 1050 1055 Met Ser Thr Pro Met Gly Gly Pro Val Pro Pro Pro Ile Arg Tyr Gly 1060 1065 Pro Pro Pro Gln Leu Cys Gly Pro Phe Gly Pro Arg Pro Leu Pro Pro 1075 1080 1085 Pro Phe Gly Pro Gly Met Arg Pro Pro Leu Gly Leu Arg Glu Phe Ala 1095 1100 Pro Gly Val Pro Pro Gly Arg Arg Asp Leu Pro Leu His Pro Arg Gly 1110 1115 Phe Leu Pro Gly His Ala Pro Phe Arg Pro Leu Gly Ser Leu Gly Pro 1125 1130 Arg Glu Tyr Phe Ile Pro Gly Thr Arg Leu Pro Pro Pro Thr His Gly 1145 1150 Pro Gln Glu Tyr Pro Pro Pro Pro Ala Val Arg Asp Leu Leu Pro Ser 1155 1160 1165 Gly Ser Arg Asp Glu Pro Pro Pro Ala Ser Gln Ser Thr Ser Gln Asp 1175 1180 Cys Ser Gln Ala Leu Lys Gln Ser Pro 1190 1193

<210> 1118 <211> 981 <212>Amino acid <213> Homo sapiens

<400> 1118 Met Ala Ala Asp Ser Glu Pro Glu Ser Glu Val Phe Glu Ile Thr Asp 10 Phe Thr Thr Ala Ser Glu Trp Glu Arg Phe Ile Ser Lys Val Glu Glu 25 Val Leu Asn Asp Trp Lys Leu Ile Gly Asn Ser Leu Gly Lys Pro Leu 40 Glu Lys Gly Ile Phe Thr Ser Gly Thr Trp Glu Glu Lys Ser Asp Glu 55 60 Ile Ser Phe Ala Asp Phe Lys Phe Ser Val Thr His His Tyr Leu Val 70 75 Gln Glu Ser Thr Asp Lys Glu Gly Lys Asp Glu Leu Leu Glu Asp Val 85 90 Val Pro Gln Ser Met Gln Asp Leu Leu Gly Met Asn Asn Asp Phe Pro

100 105 Pro Arg Ala His Cys Leu Val Arg Trp Tyr Gly Leu Arg Glu Phe Val 120 125 Val Ile Ala Pro Ala Ala His Ser Asp Ala Val Leu Ser Glu Ser Lys 135 140 Cys Asn Leu Leu Ser Ser Val Ser Ile Ala Leu Gly Asn Thr Gly 150 155 Cys Gln Val Pro Leu Phe Val Gln Ile His His Lys Trp Arg Arg Met 170 Tyr Val Gly Glu Cys Gln Gly Pro Gly Val Arg Thr Asp Phe Glu Met 185 Val His Leu Arg Lys Val Pro Asn Gln Tyr Thr His Leu Ser Gly Leu 200 Leu Asp Ile Phe Lys Ser Lys Ile Gly Cys Pro Leu Thr Pro Leu Pro 215 220 Pro Val Ser Ile Ala Ile Arg Phe Thr Tyr Val Leu Gln Asp Trp Gln 225 230 235 Gln Tyr Phe Trp Pro Gln Gln Pro Pro Asp Ile Asp Ala Leu Val Glv 245 250 Gly Glu Val Gly Gly Leu Glu Phe Gly Lys Leu Pro Phe Gly Ala Cys 260 265 Glu Asp Pro Ile Ser Glu Leu His Leu Ala Thr Thr Trp Pro His Leu 275 280 Thr Glu Gly Ile Ile Val Asp Asn Asp Val Tyr Ser Asp Leu Asp Pro 295 Ile Gln Ala Pro His Trp Ser Val Arg Val Arg Lys Ala Glu Asn Pro 310 315 Gln Cys Leu Leu Gly Asp Phe Val Thr Glu Phe Phe Lys Ile Cys Arg 330 Arg Lys Glu Ser Thr Asp Glu Ile Leu Gly Arg Ser Ala Phe Glu Glu 345 Glu Gly Lys Glu Thr Ala Asp Ile Thr His Ala Leu Ser Lys Leu Thr 360 -Glu Pro Ala Ser Val Pro Ile His Lys Leu Ser Val Ser Asn Met Val 375 . 380 His Thr Ala Lys Lys Lys Ile Arg Lys His Arg Gly Val Glu Glu Ser 390 395 Pro Leu Asn Asn Asp Val Leu Asn Thr Ile Leu Leu Phe Leu Phe Pro 410 Asp Ala Val Ser Glu Lys Pro Leu Asp Gly Thr Thr Ser Thr Asp Asn 425 Asn Asn Pro Pro Ser Glu Ser Glu Asp Tyr Asn Leu Tyr Asn Gln Phe 440 Lys Ser Ala Pro Ser Asp Ser Leu Thr Tyr Lys Leu Ala Leu Cys Leu 455 Cys Met Ile Asn Phe Tyr His Gly Gly Leu Lys Gly Val Ala His Leu 470 475 Trp Gln Glu Phe Val Leu Glu Met Arg Phe Arg Trp Glu Asn Asn Phe 485 490 Leu Ile Pro Gly Leu Ala Ser Gly Pro Pro Asp Leu Arg Cys Cys Leu 505 Leu His Gln Lys Leu Gln Met Leu Asn Cys Cys Ile Glu Arg Lys Lys 520 525 Ala Arg Asp Glu Gly Lys Lys Thr Ser Ala Ser Asp Val Thr Asn Ile 535 540 Tyr Pro Gly Asp Ala Gly Lys Ala Gly Asp Gln Leu Val Pro Asp Asn 550 555 Leu Lys Glu Thr Asp Lys Glu Lys Gly Glu Val Gly Lys Ser Trp Asp 565 570 Ser Trp Ser Asp Ser Glu Glu Glu Phe Phe Glu Cys Leu Ser Asp Thr 585 590 Glu Glu Leu Lys Gly Asn Gly Gln Glu Ser Gly Lys Lys Gly Gly Pro 600 Lys Glu Met Ala Asn Leu Arg Pro Glu Gly Arg Leu Tyr Gln His Gly

```
615
                                       620
Lys Leu Thr Leu Leu His Asn Gly Glu Pro Leu Tyr Ile Pro Val Thr
           630
                        635 640
Gln Glu Pro Ala Pro Met Thr Glu Asp Leu Leu Glu Glu Gln Ser Glu
             645
                               650 655
Val Leu Ala Lys Leu Gly Thr Ser Ala Glu Gly Ala His Leu Arg Ala
          660
                            665
Arg Met Gln Ser Ala Cys Leu Leu Ser Asp Met Glu Ser Phe Lys Ala
                        680
Ala Asn Pro Gly Cys Ser Leu Glu Asp Phe Val Arg Trp Tyr Ser Pro
                    695
Arg Asp Tyr Ile Glu Glu Glu Val Ile Asp Glu Lys Gly Asn Val Val
                 710
                                   71.5
Leu Lys Gly Glu Leu Ser Ala Arg Met Lys Ile Pro Ser Asn Met Trp
                               730
Val Glu Ala Trp Glu Thr Ala Lys Pro Ile Pro Ala Arg Arg Gln Arg
                            745
          740
Arg Leu Phe Asp Asp Thr Arg Glu Ala Glu Lys Val Leu His Tyr Leu
                        760
                                          765
Ala Ile Gln Lys Pro Ala Asp Leu Ala Arg His Leu Leu Pro Cys Val
                     775
                                       780
Ile His Ala Ala Val Leu Lys Val Lys Glu Glu Glu Ser Leu Glu Asn
                 790
                                   795
Ile Ser Ser Val Lys Lys Ile Ile Lys Gln Ile Ile Ser His Ser Ser
              805
                               810
Lys Val Leu His Phe Pro Asn Pro Glu Asp Lys Lys Leu Glu Glu Ile
                            825
                                           830
Ile His Gln Ile Thr Asn Val Glu Ala Leu Ile Ala Arg Ala Arg Ser
                        840
                                          845
Leu Lys Ala Lys Phe Gly Thr Glu Lys Cys Glu Gln Glu Glu Glu Lys
                     855
                                860
Glu Asp Leu Glu Arg Phe Val Ser Cys Leu Leu Glu Gln Pro Glu Val
                 870
                                  875
Leu Val Thr Gly Ala Gly Arg Gly His Ala Gly Arg Ile Ile His Lys
              885
                               890
Leu Phe Val Asn Ala Gln Arg Ala Ala Ala Met Thr Pro Pro Glu Glu
                            905
Glu Leu Lys Arg Met Gly Ser Pro Glu Glu Arg Arg Gln Asn Ser Val
      915
                        920
Ser Asp Phe Pro Pro Pro Ala Gly Arg Glu Phe Ile Leu Arg Thr Thr
930 935
                                      940
Val Pro Arg Pro Ala Pro Tyr Ser Lys Ala Leu Pro Gln Arg Met Tyr
                 950
                                   955
Ser Val Leu Thr Lys Glu Asp Phe Arg Leu Ala Gly Ala Phe Ser Ser
             965
                               970
Asp Thr Ser Phe Phe
          980 981
```

<210> 1119

<211> 554 <212>Amino acid

<213> Homo sapiens

 $^{^{\}circ}$ 4400> 1119 Ser Pro Thr Arg Thr Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu I $^{\circ}$ 5 $^{\circ}$ 10 $^{\circ}$ 15 Thr Glu Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu $^{\circ}$ 20 $^{\circ}$ 25 $^{\circ}$ 30 Asn Asn Thr Arg Glu Ala Ala Arg Gly Glu Val Cys Ile Phe Thr Ile

Gly	Ile 50	35 Gly	Asn	Asp	Val	Asp 55		Arg	Leu	Leu	Glu 60	45 Lys	Leu	Ser	Leu
Glu 65	Asn	Cys	Gly	Leu	Thr			Val	His	Glu 75		Glu	Asp	Ala	Gly 80
Ser	Gln	Leu	Ile	Gly 85	Phe	Tyr	Asp	Glu	Ile 90	Arg	Thr	Pro	Leu	Leu 95	
Asp	Ile	Arg	Ile 100	Asp	Tyr	Pro	Pro	Ser 105	Ser	Val	Val	Gl.n	Ala 110	Thr	Lys
	Leu	115					120					125			
	Leu 130		_			135					140				
145	Asn				150					155	_				160
	Gln			165					1.70					175	
	Gly		180					185				_	190	-	
	Thr	195					200					205			
	Lys 210 Phe					215					220				_
225	Met				230					235					240
	Glu			245					250					255	-
			260					265					270		
	Leu	275					280					285			
	Val 290					295				_	300				-
305	Thr				310					315					320
	Val			325				-	330				-	335	
	Gly		340					345					350		
	Arg	355					360					365			
	Ile 370 Pro					375					380				
385					390					395					400
	Val			405					410					415	
	Phe		420					425					430		
	Hís	435					440					445			
	Cys 450					455					460	~			
465	Glu				470					475					480
	Gln			485					490					495	
	Val		500					505					510		
	Ile	515					520					525			
	Glu 530					535				Pro	Phe 540	Asp	Thr	Gly	Met
rnr	Leu	GLY	GIN	GTA	Met	ser	Arg	Glu	Leu						

545 550 554

<210> 1120 <211> 107 <212>Amino acid <213> Homo sapiens

<400> 1120 Val Pro Leu Glu Ser Leu Ser Cys Ser His Ala Asp Asn Trp Lys Gln 5 Glu Leu Thr Lys Phe Ile Ser Pro Asp Gln Leu Pro Val Glu Phe Gly 20 25 Gly Thr Met Thr Asp Pro Asp Gly Asn Pro Lys Cys Leu Thr Lys Ile 40 Asn Tyr Gly Gly Glu Val Pro Lys Ser Tyr Tyr Leu Cys Lys Gln Val 55 Arg Leu Gln Tyr Glu His Thr Arg Ser Val Gly Arg Gly Ser Ser Leu 70 75 Gln Val Glu Asn Glu Ile Leu Phe Pro Gly Cys Val Leu Arg Cys Pro 85 90 Glu Val Leu Gln His Leu Gln Pro Gly Ser Phe 105 107

<210> 1121 <211> 1241 <212>Amino acid <213> Homo sapiens

<400> 1121 Pro Ala Ala Pro Glu His Thr Asp Pro Ser Glu Pro Arg Gly Ser Val 1 5 Ser Cys Cys Ser Leu Leu Arg Gly Leu Ser Ser Gly Trp Ser Ser Pro Leu Leu Pro Ala Pro Val Cys Asn Pro Asn Lys Ala Ile Phe Thr Val Asp Ala Lys Thr Thr Glu Ile Leu Val Ala Asn Asp Lys Ala Cys Gly Leu Leu Gly Tyr Ser Ser Gln Asp Leu Ile Gly Gln Lys Leu Thr Gln 75 Phe Phe Leu Arg Ser Asp Ser Asp Val Val Glu Ala Leu Ser Glu Glu 85 90 His Met Glu Ala Asp Gly His Ala Ala Val Val Phe Gly Thr Val Val 105 Asp Ile Ile Ser Arg Ser Gly Glu Lys Ile Pro Val Ser Val Trp Met 120 125 Lys Arg Met Arg Gln Glu Arg Arg Leu Cys Cys Val Val Val Leu Glu 135 140 Pro Val Glu Arg Val Ser Thr Trp Val Ala Phe Gln Ser Asp Gly Thr 150 155 Val Thr Ser Cys Asp Ser Leu Phe Ala His Leu His Gly Tyr Val Ser 165 170 175 Gly Glu Asp Val Ala Gly Gln His Ile Thr Asp Leu Ile Pro Ser Val 180 185 Gln Leu Pro Pro Ser Gly Gln His Ile Pro Lys Asn Leu Lys Ile Gln

```
200
Arg Ser Val Gly Arg Ala Arg Asp Gly Thr Thr Phe Pro Leu Ser Leu
            215
Lys Leu Lys Ser Gln Pro Ser Ser Glu Glu Ala Thr Thr Gly Glu Ala
         230 235
Ala Pro Val Ser Gly Tyr Arg Ala Ser Val Trp Val Phe Cys Thr Ile
             245
                 250
Ser Gly Leu Ile Thr Leu Leu Pro Asp Gly Thr Ile His Gly Ile Asn
               265 270
His Ser Phe Ala Leu Thr Leu Phe Gly Tyr Gly Lys Thr Glu Leu Leu
                     280
Gly Lys Asn Ile Thr Phe Leu Ile Pro Gly Phe Tyr Ser Tyr Met Asp
   290 295 300
Leu Ala Tyr Asn Ser Ser Leu Gln Leu Pro Asp Leu Ala Ser Cys Leu
       310 315
Asp Val Gly Asn Glu Ser Gly Cys Gly Glu Arg Thr Leu Asp Pro Trp
            325
                             330
Gln Gly Gln Asp Pro Ala Glu Gly Gly Gln Asp Pro Arg Ile Asn Val
         340
                          345
Val Leu Ala Gly Gly His Val Val Pro Arg Asp Glu Ile Arg Lys Leu
                       360
Met Glu Ser Gln Asp Ile Phe Thr Gly Thr Gln Thr Glu Leu Ile Ala
        375
                                    380
Gly Gly Gln Leu Leu Ser Cys Leu Ser Pro Gln Pro Ala Pro Gly Val
              390
                                395
Asp Asn Val Pro Glu Gly Ser Leu Pro Val His Gly Glu Gln Ala Leu
                            410
Pro Lys Asp Gln Gln Ile Thr Ala Leu Gly Arg Glu Glu Pro Val Ala
                          425
                                         430
Ile Glu Ser Pro Gly Gln Asp Leu Leu Gly Glu Ser Arg Ser Glu Pro
                       440
Val Asp Val Lys Pro Phe Ala Ser Cys Glu Asp Ser Glu Ala Pro Val
             455
Pro Ala Glu Asp Gly Gly Ser Asp Ala Gly Met Cys Gly Leu Cys Gln
                470
                                475
Lys Ala Gln Leu Glu Arg Met Gly Val Ser Gly Pro Ser Gly Ser Asp
                         490
            485
Leu Trp Ala Gly Ala Ala Val Ala Lys Pro Gln Ala Lys Gly Gln Leu
         500
                          505
Ala Gly Gly Ser Leu Leu Met His Cys Pro Cys Tyr Gly Ser Glu Trp
                      520
      515
                                      525
Gly Leu Trp Trp Arg Ser Gln Asp Leu Ala Pro Ser Pro Ser Gly Met
                535
Ala Gly Leu Ser Phe Gly Thr Pro Thr Leu Asp Glu Pro Trp Leu Gly
             550 555
Val Glu Asn Asp Arg Glu Glu Leu Gln Thr Cys Leu Ile Lys Glu Gln
            565
                             570 575
Leu Ser Gln Leu Ser Leu Ala Gly Ala Leu Asp Val Pro His Ala Glu
         580
                         585
Leu Val Pro Thr Glu Cys Gln Ala Val Thr Ala Pro Val Ser Ser Cys
                      600
Asp Leu Gly Gly Arg Asp Leu Cys Gly Gly Cys Thr Gly Ser Ser Ser
                   61.5
                                    620
Ala Cys Tyr Ala Leu Ala Thr Asp Leu Pro Gly Gly Leu Glu Ala Val
               630
                                635
Glu Ala Gln Glu Val Asp Val Asn Ser Phe Ser Trp Asn Leu Lys Glu
            645
                             650
Leu Phe Phe Ser Asp Gln Thr Asp Gln Thr Ser Ser Asn Cys Ser Cys
                         665
Ala Thr Ser Glu Leu Arg Glu Thr Pro Ser Ser Leu Ala Val Gly Ser
                     680
Asp Pro Asp Val Gly Ser Leu Gln Glu Gln Gly Ser Cys Val Leu Asp
                   695
Asp Arg Glu Leu Leu Leu Thr Gly Thr Cys Val Asp Leu Gly Gln
```

705					710					715					720
Gly	Arg	Arg	Phe	Arg 725	Glu	Ser	Cys	Val	Gly 730	His	Asp	Pro	Thr	Glu 735	Pro
			740					745	His				750	_	
Glu	Ser	Pro 755	Gly	His	Val	Pro	Ser 760	Thr	Leu	Asp	Ala	Gly 765	Pro	Glu	Asp
Thr	Cys 770	Pro	Ser	Ala	Glu	Glu 775	Pro	Arg	Leu	Asn	Val 780	Gln	Val	Thr	ser
Thr 785	Pro	Val	Ile	Val	Met 790	Arg	Gly	Ala	Ala	Gly 795	Leu	Gln	Arg	Glu	Ile 800
Gln	Glu	Gly	Ala	Tyr 805	Ser	Gly	Ser	Cys	Tyr 810	His	Arg	Asp	Gly	Leu 815	Arg
			820					825	Val				830		
Pro	Leu	Phe 835	Cys	Сув	Trp	Leu	Val 840	Lys	qaA	Leu	Leu	His 845	Ser	Gln	Arg
Asp	Ser 850	Ala	Ala	Arg	Thr	Arg 855	Leu	Phe	Leu	Ala	Ser 860	Leu	Pro	Gly	Ser
865					870				Gly	875					880
				885					Pro 890					895	
			900					905				-	910		
		915					920		Gly			925			
	930					935			Val	-	940		-	-	
945					950				Asp	955					960
				965				-	Val 970					975	
			980					985	Gly				990		
		995				1	1000		Phe		3	.005			
1	1010				1	1015			Tyr	1	1020				
1025				1	1030				Val Glu	1035				. 1	040
			1	1045				1	G1u G1y				3	L055	
		:	.060				1	065				3	1070		
	1	1075				3	1080		Arg		3	.085			
3	L090				1	1095			Leu	- 1	100				
1105		LCu	1	1	.110	cu	-1-	TALL	1	.115	FIIG	OLU	GLU		120
	Cys	Glu				Thr	Val		Ala 130		Ile	His			
Leu	Val		Lys 140	Glu	Leu	Met		Leu 145	Val	Ser	Gly		Leu 150	Gln	Pro
	1	L155				1	160		Lys		1	.165			
1	.170				1	175			Tyr	1	.180				
Arg	Val	Asn	Lys	Pro	Glu	Ser	Gly	Val	Leu		Ala	Ala	Ser		
1185			Arg	Ser	190			Val	Ala	.195			Glu	Leu	200
co.	G1.	ъ.		205		~7			210					.215	
GTÅ	GTĀ	Pro	val	Pro	GTA	Glu	Ala	Pro	Asn	Gly	Gln	Gly	Cys	Leu	His

1220 1225 Pro Gly Asp Pro Arg Leu Leu Thr Ser 1235 12401241 1230

<210> 1122 <211> 395 <212>Amino acid <213> Homo sapiens

<400> 1122 Pro Gly Thr Ser Ala Ala Thr Cys Arg Phe Leu Ser Pro Pro Val Ile 5 10 Ser Leu Ser Phe Thr Gly Leu Cys Ile Ser Asp Leu Val Val Ala Val 25 Asn Gly Val Trp Ile Leu Val Glu Thr Phe Met Leu Lys Gly Gly Asn 40 Phe Phe Ser Lys His Val Pro Trp Ser Tyr Leu Val Phe Leu Thr Ile 55 Tyr Gly Val Glu Leu Phe Leu Lys Val Ala Gly Leu Gly Pro Val Glu 70 75 Tyr Leu Ser Ser Gly Trp Asn Leu Phe Asp Phe Ser Val Thr Val Phe 85 90 Ala Phe Leu Gly Leu Leu Ala Leu Ala Leu Asn Met Glu Pro Phe Tyr 100 105 Phe Ile Val Val Leu Arg Pro Leu Gln Leu Leu Arg Leu Phe Lys Leu 120 Lys Glu Arg Tyr Arg Asn Val Leu Asp Thr Met Phe Glu Leu Leu Pro 135 Arg Met Ala Ser Leu Gly Leu Thr Leu Leu Ile Phe Tyr Tyr Ser Phe 150 155 Ala Ile Val Gly Met Glu Phe Phe Cys Gly Ile Val Phe Pro Asn Cys 170 Cys Asn Thr Ser Thr Val Ala Asp Ala Tyr Arg Trp Arg Asn His Thr 185 Val Gly Asn Arg Thr Val Val Glu Glu Gly Tyr Tyr Tyr Leu Asn Asn 200 205 Phe Asp Asn Ile Leu Asn Ser Phe Val Thr Leu Phe Glu Leu Thr Val 215 220 Val Asn Asn Trp Tyr Ile Ile Met Glu Gly Val Thr Ser Gln Thr Ser 230 235 His Trp Ser Arg Leu Tyr Phe Met Thr Phe Tyr Ile Val Thr Met Val 245 250 Val Met Thr Ile Ile Val Ala Phe Ile Leu Glu Ala Phe Val Phe Arg 265 Met Asn Tyr Ser Arg Lys Asn Gln Asp Ser Glu Val Asp Gly Gly Ile 280 Thr Leu Glu Lys Glu Ile Ser Lys Glu Glu Leu Val Ala Val Leu Glu 295 300 Leu Tyr Arg Glu Ala Arg Gly Ala Ser Ser Asp Val Thr Arg Leu Leu 310 315 Glu Thr Leu Ser Gln Met Glu Arg Tyr Gln Gln His Ser Met Val Phe 325 330 Leu Gly Arg Arg Ser Arg Thr Lys Ser Asp Leu Ser Leu Lys Met Tyr 345 Gln Glu Glu Ile Gln Glu Trp Tyr Glu Glu His Ala Arg Glu Gln Glu 360 365 Gln Gln Arg Gln Leu Ser Ser Ser Ala Ala Pro Ala Ala Gln Gln Pro 375 Pro Gly Ser Arg Gln Arg Ser Gln Thr Val Thr

385 390 395

<210> 1123 <211> 328 <212>Amino acid <213> Homo sapiens

<400> 1123 Leu Ala Gly Val Gly Thr Gln Ala Pro Pro Arg Arg Pro Gly Gly Glu 10 Met Ala Ala Gly Gln Asn Gly His Glu Glu Trp Val Gly Ser Ala Tyr 25 Leu Phe Val Glu Ser Ser Leu Asp Lys Val Val Leu Ser Asp Ala Tyr 40 Ala His Pro Gln Gln Lys Val Ala Val Tyr Arg Ala Leu Gln Ala Ala 55 Leu Ala Glu Ser Gly Gly Ser Pro Asp Val Leu Gln Met Leu Lys Ile 70 His Arg Ser Asp Pro Gln Leu Ile Val Gln Leu Arg Phe Cys Gly Arg 90 Gln Pro Cys Gly Arg Phe Leu Arg Ala Tyr Arg Glu Gly Ala Leu Arg 100 105 110 Ala Ala Leu Gln Arg Ser Leu Ala Ala Ala Leu Ala Gln His Ser Val 115 120 Pro Leu Gln Leu Asp Leu Arg Ala Gly Ala Glu Arg Leu Glu Ala Leu 130 135 Leu Ala Asp Glu Glu Arg Cys Leu Ser Cys Ile Leu Ala Gln Gln Pro 150 155 Asp Arg Leu Arg Asp Glu Glu Leu Ala Glu Leu Glu Asp Ala Leu Arg 165 170 Asn Leu Lys Cys Gly Ser Gly Ala Arg Gly Gly Asp Gly Glu Val Ala 180 185 Ser Ala Pro Leu Gln Pro Pro Val Pro Ser Leu Ser Glu Val Lys Pro 195 200 Pro Pro Pro Pro Pro Pro Ala Gln Thr Phe Leu Phe Gln Gly Gln Pro 215 Val Val Asn Arg Pro Leu Ser Leu Lys Asp Gln Gln Thr Phe Ala Arg 225 230 235 240 Ser Val Gly Leu Lys Trp Arg Lys Val Gly Arg Ser Leu Gln Arg Gly 250 Cys Arg Ala Leu Arg Asp Pro Ala Leu Asp Ser Leu Ala Tyr Glu Tyr 265 Glu Arg Glu Gly Leu Tyr Glu Gln Ala Phe Gln Leu Leu Arg Arg Phe 280 Val Gln Ala Glu Gly Arg Arg Ala Thr Leu Gln Arg Leu Val Glu Ala 295 300 Leu Glu Glu Asn Glu Leu Thr Ser Leu Ala Glu Asp Leu Leu Gly Leu 310 315 Thr Asp Pro Asn Gly Gly Leu Ala 325 328

<210> 1124 <211> 667 <212>Amino acid <213> Homo sapiens

<220>

<222> (1)...(667) <223> X = any amino acid or stop code

<400> 1124 Ser Ser Lys Pro Lys Leu Lys Lys Arg Phe Ser Leu Arg Ser Val Gly Arg Ser Val Arg Gly Ser Val Arg Gly Ile Leu Gln Trp Arg Gly Thr Val Asp Pro Pro Ser Ser Ala Gly Pro Leu Glu Thr Ser Ser Gly Pro 40 Pro Val Leu Gly Gly Asn Ser Asn Ser Asn Ser Ser Gly Gly Ala Gly 55 Thr Val Gly Arg Gly Leu Val Ser Asp Gly Thr Ser Pro Gly Glu Arg 70 75 Trp Thr His Arg Phe Glu Arg Leu Arg Leu Ser Arg Gly Gly Gly Ala 25 90. Leu Lys Asp Gly Ala Gly Met Val Gln Arg Glu Glu Leu Leu Ser Phe 100 105 Met Gly Ala Glu Glu Ala Ala Pro Asp Pro Ala Gly Val Gly Arg Gly 120 Gly Gly Val Ala Gly Pro Pro Ser Gly Gly Gly Gly Gln Pro Gln Trp 135 140 Gln Lys Cys Arg Leu Leu Leu Arg Ser Glu Gly Glu Gly Gly Gly 150 155 Ser Arg Leu Glu Phe Phe Val Pro Pro Lys Ala Ser Arg Pro Arg Leu 165 170 Ser Ile Pro Cys Ser Ser Ile Thr Asp Val Arg Thr Thr Thr Ala Leu 180 185 Glu Met Pro Asp Arg Glu Asn Thr Phe Val Val Lys Val Glu Gly Pro 200 Ser Glu Tyr Ile Met Glu Thr Val Asp Ala Gln His Val Lys Ala Trp 215 Val Ser Asp Ile Gln Glu Cys Leu Ser Pro Gly Pro Cys Pro Ala Thr 230 235 Ser Pro Arg Pro Met Thr Leu Pro Leu Ala Pro Gly Thr Ser Phe Leu 250 Thr Arg Glu Asn Thr Asp Ser Leu Glu Leu Ser Cys Leu Asn His Ser 265 Glu Ser Leu Pro Ser Gln Asp Leu Leu Gly Pro Ser Glu Ser Asn 280 Asp Arg Leu Ser Gln Gly Ala Tyr Gly Gly Leu Ser Asp Arg Pro Ser 295 300 Ala Ser Ile Ser Pro Ser Ser Ala Ser Ile Ala Ala Ser His Phe Asp 310 315 Ser Met Glu Leu Leu Pro Pro Glu Leu Pro Pro Arg Ile Pro Ile Glu 325 330 Glu Gly Pro Pro Ala Gly Thr Val His Pro Leu Ser Ala Pro Tyr Pro 345 Pro Leu Asp Thr Pro Glu Thr Ala Thr Gly Ser Phe Leu Phe Gln Gly 360 Glu Pro Glu Gly Gly Glu Gly Asp Gln Pro Leu Ser Gly Tyr Pro Trp 375 Phe His Gly Met Leu Ser Arg Leu Lys Ala Ala Gln Leu Val Leu Thr 390 395 Gly Gly Thr Gly Ser His Gly Val Phe Leu Val Arg Gln Ser Glu Thr 410 Arg Arg Gly Glu Tyr Val Leu Thr Phe Asn Phe Gln Gly Lys Ala Lys 425 His Leu Arg Leu Ser Leu Asn Glu Glu Gly Gln Cys Arg Val Gln His

Leu Trp Phe Gln Ser Ile Phe Asp Met Leu Glu His Phe Arg Val His 455 Pro Ile Pro Leu Glu Ser Gly Gly Ser Ser Asp Val Val Leu Val Ser 470 475 Tyr Val Pro Ser Ser Gln Arg Gln Gln Gly Glu Gln Ser Arg Ser Ala 485 490 Gly Glu Glu Val Pro Val His Pro Arg Ser Glu Ala Gly Ser Arg Leu 500 505 Gly Ala Met Arg Gly Cys Ala Arg Glu Met Asp Ala Thr Pro Asn Ala 520 Ser Cys Thr Leu Met Pro Phe Gly Ala Ser Asp Cys Glu Pro Thr Thr 535 540 Ser His Asp Pro Pro Gln Pro Pro Glu Pro Pro Ser Trp Thr Asp Pro 550 555 Pro Gln Pro Gly Glu Glu Glu Ala Ser Arg Ala Pro Gly Ser! Gly Gly 565 570 Gln Gln Ala Ala Ala Ala Lys Glu Arg Gln Glu Lys Glu Lys Ala 585 Gly Gly Gly Val Pro Glu Glu Leu Val Pro Val Val Xaa Leu Val 600 Pro Val Gly Glu Leu Gly Glu Gly His Arg Pro Gln Ala Gln Glu Ala 615 620 Gln Gly Arg Leu Gly Pro Gly Gly Asp Ala Gly Val Pro Pro Met Val 630 635 Gln Leu Gln Gln Ser Pro Leu Gly Gly Asp Gly Glu Glu Gly Gly His 645 650 Pro Arg Ala Ile Asn Asn Gln Tyr Ser Phe Val

<210> 1125 <211> 387 <212>Amino acid <213> Homo sapiens

<400> 1125 Phe Arg Ala Pro Val Gly Thr Ala Ala Arg Ser Pro Gln Val Val Ile 5 10 Arg Arg Leu Pro Pro Gly Leu Thr Lys Glu Gln Leu Glu Glu Gln Leu 20 . 25 Arg Pro Leu Pro Ala His Asp Tyr Phe Glu Phe Phe Ala Ala Asp Leu 40 Ser Leu Tyr Pro His Leu Tyr Ser Arg Ala Tyr Ile Asn Phe Arg Asn 55 Pro Asp Asp Ile Leu Leu Phe Arg Asp Arg Phe Asp Gly Tyr Ile Phe 70 Leu Asp Ser Lys Asp Pro Glu Tyr Lys Lys Phe Leu Glu Thr Tyr Cys 90 Val Glu Glu Lys Thr Ser Ala Asn Pro Glu Thr Leu Leu Gly Glu 105 Met Glu Ala Lys Thr Arg Glu Leu Ile Ala Arg Arg Thr Thr Pro Leu 120 Leu Glu Tyr Ile Lys Asn Arg Lys Leu Glu Lys Gln Arg Ile Arg Glu 135 140 Glu Lys Arg Glu Glu Arg Arg Arg Glu Leu Glu Lys Lys Arg Leu 150 155 Arg Glu Glu Lys Arg Arg Arg Glu Glu Glu Arg Cys Lys Lys 165 170 Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile 180 185

Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys 200 Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu 215 Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser 230 235 Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His 245 250 Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr 265 His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg 280 Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly 295 300 Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu 310 315 Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala 325 330 Pro Arg Lys Glu Arg Leu Ala Asn Lys Asp Arg Pro Ala Leu Gln Leu 340 345 Tyr Asp Pro Gly Ala Arg Phe Arg Ala Arg Glu Cys Gly Gly Asn Arg 360 Arg Ile Cys Lys Ala Glu Gly Ser Gly Thr Gly Pro Glu Lys Arg Glu 375 Glu Ala Glu 385 387

<210> 1126 <211> 208 <212>Amino acid

<213> Homo sapiens

<400> 1126 Gly Val Trp Gly Val Cys Val Ser Gly Leu Leu Gln Val Gly Ser Gln 10 Arg Ala Gln Ala Trp Arg Ala Trp Ser Pro Met Glu Thr Pro Leu Thr 25 Gly Thr Phe Leu Trp Pro His Ile Pro Gln Gly Leu Phe Phe Asp Asp 40 Ser Tyr Gly Phe Tyr Pro Gly Gln Val Leu Ile Gly Pro Ala Lys Ile 55 60 Phe Ser Ser Val Gln Trp Leu Ser Gly Val Lys Pro Val Leu Ser Thr 70 75 Lys Ser Lys Phe Arg Val Val Val Glu Glu Val Gln Val Val Glu Leu 85 90 Lys Val Thr Trp Ile Thr Lys Ser Phe Cys Pro Gly Gly Thr Asp Ser 105 Val Ser Pro Pro Pro Ser Val Ile Thr Gln Glu Asn Leu Gly Arg Val 120 Lys Arg Leu Gly Cys Phe Asp His Ala Gln Arg His Ala Trp Gly Ala 135 140 Leu Ser Val Cys Leu Pro Ser Gln Gly Arg Ala Ser Gln Asp Cys Leu 150 155 Gly Met Ser Arg Lys Lys Leu Arg Pro Gly Gly Gly Leu Tyr Gly Gln 165 170 Glu Gly Glu Ala Pro Val Glu Glu Ala Gly Cys Ala Asp His Val Met 185 190 Leu Pro Arg His Pro Val Phe Pro Gly Pro Phe His Gly Arg Pro Arg 195 200 205 208

<210> 1127 <211> 670 <212>Amino acid <213> Homo sapiens

<400> 1127 Phe Arg Asp Ser Ser Pro Cys Ser Ala Phe Glu Phe His Cys Leu Ser 10 Gly Glu Cys Ile His Ser Ser Trp Arg Cys Asp Gly Gly Pro Asp Cys 25 Lys Asp Lys Ser Asp Glu Glu Asn Cys Ala Val Ala Thr Cys Arg Pro 35 40 Asp Glu Phe Gln Cys Ser Asp Gly Asn Cys Ile His Gly Ser Arg Gln 55 Cys Asp Arg Glu Tyr Asp Cys Lys Asp Met Ser Asp Glu Val Gly Cys 70 75 Val Asn Val Thr Leu Cys Glu Gly Pro Asn Lys Phe Lys Cys His Ser 85 90 Gly Glu Cys Ile Thr Leu Asp Lys Val Cys Asn Met Ala Arg Asp Cys 100 105 Arg Asp Trp Ser Asp Glu Pro Ile Lys Glu Cys Gly Thr Asn Glu Cys 115 120 Leu Asp Asn Asn Gly Gly Cys Ser His Val Cys Asn Asp Leu Lys Ile 130 135 140 Gly Tyr Glu Cys Leu Cys Pro Asp Gly Phe Gln Leu Val Ala Gln Arg 150 155 Arg Cys Glu Asp Ile Asp Glu Cys Gln Asp Pro Asp Thr Cys Ser Glm 170 Leu Cys Val Asn Leu Glu Gly Gly Tyr Lys Cys Gln Cys Glu Glu Gly 185 Phe Gln Leu Asp Pro His Thr Lys Ala Cys Lys Ala Val Gly Ser Ile 200 Ala Tyr Leu Phe Phe Thr Asn Arg His Glu Val Arg Lys Met Thr Leu 215 220 Asp Arg Ser Glu Tyr Thr Ser Leu Ile Pro Asn Leu Arg Asn Val Val 235 230 Ala Leu Asp Thr Glu Val Ala Ser Asn Arg Ile Tyr Trp Ser Asp Leu 245 250 Ser Gln Arg Met Ile Cys Ser Thr Gln Leu Asp Arg Ala His Gly Val 265 Ser Ser Tyr Asp Thr Val Ile Ser Arg Asp Ile Gln Ala Pro Asp Gly 275 280 Leu Ala Val Asp Trp Ile His Ser Asn Ile Tyr Trp Thr Asp Ser Val 295 300 Leu Gly Thr Val Ser Val Ala Asp Thr Lys Gly Val Lys Arg Lys Thr 310 315 Leu Phe Arg Glu Asn Gly Ser Lys Pro Arg Ala Ile Val Val Asp Pro 330 Val His Gly Phe Met Tyr Trp Thr Asp Trp Gly Thr Pro Ala Lys Ile 345 Lys Lys Gly Gly Leu Asn Gly Val Asp Ile Tyr Ser Leu Val Thr Glu 355 360 Asn Ile Gln Trp Pro Asn Gly Ile Thr Leu Asp Leu Leu Ser Gly Arg 375 380 Leu Tyr Trp Val Asp Ser Lys Leu His Ser Ile Ser Ser Ile Asp Val 395

Asn Gly Gly Asn Arg Lys Thr Ile Leu Glu Asp Glu Lys Arg Leu Ala His Pro Phe Ser Leu Ala Val Phe Glu Asp Lys Val Phe Trp Thr Asp 425 Ile Ile Asn Glu Ala Ile Phe Ser Ala Asn Arg Leu Thr Gly Ser Asp 440 Val Asn Leu Leu Ala Glu Asn Leu Leu Ser Pro Glu Asp Met Val Leu 455 460 Phe His Asn Leu Thr Gln Pro Arg Gly Val Asn Trp Cys Glu Arg Thr 470 475 Thr Leu Ser Asn Gly Gly Cys Gln Tyr Leu Cys Leu Pro Ala Pro Gln 485 490 Ile Asn Pro His Ser Pro Lys Phe Thr Cys Ala Cys Pro Asp Gly Met 500 505 Leu Leu Ala Arg Asp Met Arg Ser Cys Leu Thr Glu Gly Glu Ala Ala 520 Val Ala Thr Gln Glu Thr Ser Thr Val Arg Leu Lys Val Ser Ser Thr 535 540 Ala Val Arg Thr Gln His Thr Thr Thr Arg Pro Val Pro Asp Thr Ser 550 555 Arg Leu Pro Gly Ala Thr Pro Gly Leu Thr Thr Val Glu Ile Val Thr 565 570 Met Ser His Gln Ala Leu Gly Asp Val Ala Gly Arg Gly Asn Glu Lys 585 Lys Pro Ser Ser Val Arg Ala Leu Ser Ile Val Leu Pro Ile Val Leu 600 Leu Val Phe Leu Cys Leu Gly Val Phe Leu Leu Trp Lys Asn Trp Arg 615 620 Leu Lys Asn Ile Asn Ser Ile Asn Phe Asp Asn Pro Val Tyr Gln Lys 630 635 Thr Thr Glu Asp Glu Val His Ile Cys His Asn Gln Asp Gly Tyr Ser 650 655 Tyr Pro Ser Arg Gln Met Val Ser Leu Glu Asp Asp Val Ala 665

<400> 1128 Arg Ile Pro Gly Leu Gly Pro Pro Gly Ser Pro Pro Pro Pro Pro His Val Arg Gly Met Pro Gly Cys Pro Cys Pro Gly Cys Gly Met Ala Gly Pro Arg Leu Leu Phe Leu Thr Ala Leu Ala Leu Glu Leu Leu Gly Arg Ala Gly Gly Ser Gln Pro Ala Leu Arg Ser Arg Gly Thr Ala Thr Ala 55 Cys Arg Leu Asp Asn Lys Glu Ser Glu Ser Trp Gly Ala Leu Leu Ser 70 75 Gly Glu Arg Leu Asp Thr Trp Ile Cys Ser Leu Leu Gly Ser Leu Met 85 90 Val Gly Leu Ser Gly Val Phe Pro Leu Leu Val Ile Pro Leu Glu Met 100 105 Gly Thr Met Leu Arg Ser Glu Ala Gly Ala Trp Arg Leu Lys Gln Leu 120 Leu Ser Phe Ala Leu Gly Gly Leu Leu Gly Asn Val Phe Leu His Leu 135

<210> 1128 <211> 383

<212>Amino acid

<213> Homo sapiens

Leu Pro Glu Ala Trp Ala Tyr Thr Cys Ser Ala Ser Pro Gly Gly Glu 150 155 Gly Gln Ser Leu Gln Gln Gln Gln Leu Gly Leu Trp Val Ile Ala 165 170 Gly Ile Leu Thr Phe Leu Ala Leu Glu Lys Met Phe Leu Asp Ser Lys 185 Glu Glu Gly Thr Ser Gln Ala Pro Asn Lys Asp Pro Thr Ala Ala Ala 195 200 Ala Ala Leu Asn Gly Gly His Cys Leu Ala Gln Pro Ala Ala Glu Pro 215 Gly Leu Gly Ala Val Val Arg Ser Ile Lys Val Ser Gly Tyr Leu Asn 230 235 Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr His Gly Leu Ala Val Ala Ala Ser Phe Leu Val Ser Lys Lys Ile Gly Leu Leu Thr Thr Met Ala 265 Ile Leu Leu His Glu Ile Pro His Glu Val Gly Asp Phe Ala Ile Leu 280 Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala Ala Lys Leu Gln Leu Ser 295 300 Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly Phe Ala Ile Cys Thr Gln 310 315 Ser Pro Lys Gly Val Glu Glu Thr Ala Ala Trp Val Leu Pro Phe Thr 325 330 Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val Asn Val Leu Pro Asp Leu 340 345 Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu Gln Gln Leu Leu Leu Leu 355 360 365 Cys Ala Gly Ile Val Val Met Val Leu Phe Ser Leu Phe Val Asp 375 380

<210> 1129 <211> 174 <212>Amino acid <213> Homo sapiens

<400> 1129 Gly Lys Val Ser Ala Gly Gln Ala Gly Ala Asp Arg Thr Leu Arg Arg 10 Ala Pro Glu Pro Arg Phe Ser Gln Glu Pro Thr Gly Asn Ser Ala Tyr 25 Pro Gln Leu Arg Pro Phe Leu Asp Pro Gln Gly Arg Asp Leu Lys Pro 40 Ser Ala Leu Val Pro Pro Thr Arg Ser His Thr Gly Arg Arg Pro Trp 55 Leu His Thr Gln Pro Leu Pro Gly Pro Gln Gly Arg Ala Trp Gly Pro 70 75 Thr Cys Thr Pro Ala Cys Val Asp Arg Val Leu Glu Ser Glu Glu Gly 85 90 Arg Arg Glu Tyr Leu Ala Phe Pro Thr Ser Lys Ser Ser Gly Gln Lys 100 105 Gly Arg Lys Glu Leu Leu Lys Gly Asn Gly Arg Arg Ile Asp Tyr Met 120 Leu His Ala Glu Glu Gly Leu Cys Pro Asp Trp Lys Ala Glu Val Glu 135 140 Glu Phe Ser Phe Ile Thr Gln Leu Ser Gly Leu Thr Asp His Leu Pro 150 155 Val Ala Met Arg Leu Met Val Ser Ser Gly Glu Glu Glu Ala 165 170 174

<210> 1130 <211> 231 <212>Amino acid <213> Homo sapiens

<400> 1130 Pro Cys Gly Gly Ile Arg Leu Ser Ala Ser Glu Ala Ala Thr Leu Phe 1.0 Gly Tyr Leu Val Val Pro Ala Gly Gly Gly Gly Thr Phe Leu Gly Gly 20 25 Phe Phe Val Asn Lys Leu Arg Leu Arg Gly Ser Ala Val Ile Lys Phe Cys Leu Phe Cys Thr Val Val Ser Leu Leu Gly Ile Leu Val Phe Ser 55 Leu His Cys Pro Ser Val Pro Met Ala Gly Val Thr Ala Ser Tyr Gly 70 75 Gly Ser Leu Leu Pro Glu Gly His Leu Asn Leu Thr Ala Pro Cys Asn 90 Ala Ala Cys Ser Cys Gln Pro Glu His Tyr Ser Pro Val Cys Gly Ser 100 105 Asp Gly Leu Met Tyr Phe Ser Leu Cys His Ala Gly Cys Pro Ala Ala 120 125 Thr Glu Thr Asn Val Asp Gly Gln Lys Val Ser Gly Ala Ala Ala Tyr 135 140 Arg Pro Cys Pro Pro Leu Asp Pro Gly Lys Gly Pro Pro Cys Leu Pro 150 155 Leu Val Ile Gly Ala Ile Val Gly Leu Pro Arg Cys Thr Glu Thr Val 170 Ala Val Ser Leu Arg Ile Phe Pro Leu Val Leu Ala Met His Cys Arg 180 185 Glu Met His Phe Asn Leu Ser Glu Lys Ala Pro Pro Ser Gly Phe His 200 205 Ile Arg Cys Asn Phe Leu Tyr Ile Pro Gln Gln His Ser Cys Thr Asn 215 220 Gly Asn Ser Thr Met Cys Pro 230 231

<210> 1131

<211> 234

<212>Amino acid

<213> Homo sapiens

Asp Glu Asn Leu Leu Val Asp Leu Arg Ser Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe 105 Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg 120 Tyr His Gly Arg Ser Ala Thr Val Trp Ser Leu Gly Val Leu Leu Tyr 135 140 Asp Met Val Cys Gly Asp Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu 150 155 Arg Gly Arg Leu Leu Phe Arg Arg Arg Val Ser Pro Glu Cys Gln Gln 165 170 Leu Ile Arg Trp Cys Leu Ser Leu Arg Pro Ser Glu Arg Pro Ser Leu 185 180 Asp Gln Ile Ala Ala His Pro Trp Met Leu Gly Ala Asp Gly Gly Ala 195 200 205 Pro Glu Ser Cys Asp Leu Arg Leu Cys Thr Leu Asp Pro Asp Asp Val 215 Ala Ser Thr Thr Ser Ser Ser Glu Ser Leu 230

<210> 1132 <211> 270 <212>Amino acid <213> Homo sapiens

<400> 1132 Gly Lys Asn Ser Gln Lys Ala Ser Pro Val Asp Asp Glu Gln Leu Ser 10 Val Cys Leu Ser Gly Phe Leu Asp Glu Val Met Lys Lys Tyr Gly Ser Leu Val Pro Leu Ser Glu Lys Glu Val Leu Gly Arg Leu Lys Asp Val 40 Phe Asn Glu Asp Phe Ser Asn Arg Lys Pro Phe Ile Asn Arg Glu Ile 55 Thr Asn Tyr Arg Ala Arg His Gln Lys Cys Asn Phe Arg Ile Phe Tyr 70 75 Asn Lys His Met Leu Asp Met Asp Asp Leu Ala Thr Leu Asp Gly Gln 90 Asn Trp Leu Asn Asp Gln Val Ile Asn Met Tyr Gly Glu Leu Ile Met 100 105 Asp Ala Val Pro Asp Lys Val His Phe Phe Asn Ser Phe Phe His Arg 120 Gln Leu Val Thr Lys Gly Tyr Asn Gly Val Lys Arg Trp Thr Lys Lys 135 140 Val Asp Leu Phe Lys Lys Ser Leu Leu Leu Ile Pro Ile His Leu Glu 150 155 Val His Trp Ser Leu Ile Thr Val Thr Leu Ser Asn Arg Ile Ile Ser 165 170 Phe Tyr Asp Ser Gln Gly Ile His Phe Lys Phe Cys Val Glu Asn Ile 180 190 185 Arg Lys Tyr Leu Leu Thr Glu Ala Arg Glu Lys Asn Arg Leu Asn Leu 195 200 205 Gln Gly Trp Gln Thr Ala Val Thr Lys Cys Ile Pro Gln Gln Lys Asn 215 220 Asp Ser Asp Cys Gly Val Phe Val Leu Gln Tyr Cys Lys Cys Leu Ala 225 230 235 Leu Lys Gln Pro Phe Gln Phe Ser Gln Glu Asp Met Pro Arg Val Arg 250

Lys Arg Ile Tyr Lys Glu Leu Cys Glu Cys Arg Leu Met Asp 260 265

<210> 1133 <211> 204

<212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(204)

<223> X = any amino acid or stop code

<400> 1133

Pro Pro Gly Gly Xaa Gln Gly Ser Ala Ala Lys His Arg Phe Pro Lys - 5 10 Gly Tyr Arg His Pro Ala Leu Glu Ala Arg Leu Gly Arg Arg Arg Thr 25 Val Gln Glu Ala Arg Ala Leu Leu Arg Cys Arg Arg Ala Gly Ile Ser 40 Ala Pro Val Val Phe Phe Val Asp Tyr Ala Ser Asn Cys Leu Tyr Met 55 Glu Glu Ile Glu Gly Ser Val Thr Val Arg Asp Tyr Ile Gln Ser Thr 70 Met Glu Thr Glu Lys Thr Pro Gln Gly Leu Ser Asn Leu Ala Lys Thr 90 Ile Gly Gln Val Leu Ala Arg Met His Asp Glu Asp Leu Ile His Gly . 105 110 Asp Leu Thr Thr Ser Asn Met Leu Leu Lys Pro Pro Leu Glu Gln Leu 120 Asn Ile Val Leu Ile Asp Phe Gly Leu Ser Phe Ile Ser Ala Leu Pro 135 140 Glu Asp Lys Gly Val Asp Leu Tyr Val Leu Glu Lys Ala Phe Leu Ser 150 155 Thr His Pro Asn Thr Glu Thr Val Phe Glu Ala Phe Leu Lys Ser Tyr 170 Ser Thr Ser Ser Lys Lys Ala Arg Pro Val Leu Lys Lys Leu Asp Glu 185 Val Arg Leu Arg Gly Lys Lys Arg Ser Met Val Gly 200 204

<210> 1134 <211> 531

<212>Amino acid <213> Homo sapiens

<400> 1134

Arg Ala Cys Val Phe Arg Pro Glu Asp Met Met Gln Gly Glu Ala His 10 Pro Ser Ala Ser Leu Ile Asp Arg Thr Ile Lys Met Arg Lys Glu Thr 20 25 Glu Ala Arg Lys Val Val Leu Ala Trp Gly Leu Leu Asn Val Ser Met 40 Ala Gly Met Ile Tyr Thr Glu Met Thr Gly Lys Leu Ile Ser Ser Tyr

55 60 Tyr Asn Val Thr Tyr Trp Pro Leu Trp Tyr Ile Glu Leu Ala Leu Ala 70 75 Ser Leu Phe Ser Leu Asn Ala Leu Phe Asp Phe Trp Arg Tyr Phe Lys 90 Tyr Thr Val Ala Pro Thr Ser Leu Val Val Ser Pro Gly Gln Gln Thr 100 105 110 Leu Leu Gly Leu Lys Thr Ala Val Val Gln Thr Thr Pro Pro His Asp 120 125 Leu Ala Ala Thr Gln Ile Pro Pro Ala Pro Pro Ser Pro Ser Ile Gln 135 140 Gly Gln Ser Val Leu Ser Tyr Ser Pro Ser Arg Ser Pro Ser Thr Ser 145 150 155 Pro Lys Phe Thr Thr Ser Cys Met Thr Gly Tyr Ser Pro Gln Leu Gln 165 170 Gly Leu Ser Ser Gly Gly Ser Gly Ser Tyr Ser Pro Gly Val Thr Tyr 180 185 Ser Pro Val Ser Gly Tyr Asn Lys Leu Ala Ser Phe Ser Pro Ser Pro 200 Pro Ser Pro Tyr Pro Thr Thr Val Gly Pro Val Glu Ser Ser Gly Leu 215 220 Arg Ser Arg Tyr Arg Ser Ser Pro Thr Val Tyr Asn Ser Pro Thr Asp 230 235 Lys Glu Asp Tyr Met Thr Asp Leu Arg Thr Leu Asp Thr Phe Leu Arg 250 Ser Glu Glu Glu Lys Gln His Arg Val Lys Leu Gly Ser Pro Asp Ser 265 Thr Ser Pro Ser Ser Ser Pro Thr Phe Trp Asn Tyr Ser Arg Ser Met 280 285 Gly Asp Tyr Ala Gln Thr Leu Lys Lys Phe Gln Tyr Gln Leu Ala Cys 295 300 Arg Ser Gln Ala Pro Cys Ala Asn Lys Asp Glu Ala Asp Leu Ser Ser 310 315 Lys Gln Ala Ala Glu Glu Val Trp Ala Arg Val Ala Met Asn Arg Gln 325 330 Leu Leu Asp His Met Asp Ser Trp Thr Ala Lys Phe Arg Asn Trp Ile 345 Asn Glu Thr Ile Leu Val Pro Leu Val Gln Glu Ile Glu Ser Val Ser 360 Thr Gln Met Arg Arg Met Gly Cys Pro Glu Leu Gln Ile Gly Glu Ala 375 380 Ser Ile Thr Ser Leu Lys Gln Ala Ala Leu Val Lys Ala Pro Leu Ile 390 395 Pro Thr Leu Asn Thr Ile Val Gln Tyr Leu Asp Leu Thr Pro Asn Gln 405 410 Glu Tyr Leu Phe Glu Arg Ile Lys Glu Leu Ser Gln Gly Gly Cys Met 420 425 Ser Ser Phe Arg Trp Asn Arg Gly Gly Asp Phe Lys Gly Arg Lys Trp 440 445 Asp Thr Asp Leu Pro Thr Asp Ser Ala Ile Ile Met His Val Phe Cys 455 460 Thr Tyr Leu Asp Ser Arg Leu Pro Pro His Pro Lys Tyr Pro Asp Gly 470 475 Lys Thr Phe Thr Ser Gln His Phe Val Gln Thr Pro Asn Lys Pro Asp 485 490 Val Thr Asn Glu Asn Val Phe Cys Ile Tyr Gln Ser Ala Ile Asn Pro 500 505 Pro His Tyr Glu Leu Ile Tyr Gln Arq His Val Tyr Ile Pro Ala Lys 515 520 Gly Gln Lvs 530 531

<210> 1135

<211> 508 <212>Amino acid <213> Homo sapiens

<400> 1135 Ser Ser Ala Val Glu Phe Ile Asn Arg Asn Asn Ser Val Val Gln Val 1.0 Leu Leu Ala Ala Gly Ala Asp Pro Asn Leu Gly Asp Asp Phe Ser Ser 25 Val Tyr Lys Thr Ala Lys Glu Gln Gly Ile His Ser Leu Glu Val Leu 35 40 Ile Thr Arg Glu Asp Asp Phe Asn Asn Arg Leu Asn Asn Arg Ala Ser 55 Phe Lys Gly Cys Thr Ala Leu His Tyr Ala Val Leu Ala Asp Asp Tyr 75 Arg Thr Val Lys Glu Leu Leu Asp Gly Gly Ala Asn Pro Leu Gln Arg 85 90 Asn Glu Met Gly His Thr Pro Leu Asp Tyr Ala Arg Glu Gly Glu Val 1.00 105 Met Lys Leu Leu Arg Thr Ser Glu Ala Lys Tyr Gln Glu Lys Gln Arg 120 125 Lys Arg Glu Ala Glu Glu Arg Arg Arg Phe Pro Leu Glu Gln Arg Leu 135 140 Lys Glu His Ile Ile Gly Gln Glu Ser Ala Ile Ala Thr Val Gly Ala 150 155 Ala Ile Arg Arg Lys Glu Asn Gly Trp Tyr Asp Glu Glu His Pro Leu 170 Val Phe Leu Phe Leu Gly Ser Ser Gly Ile Gly Lys Thr Glu Leu Ala 185 Lys Gln Thr Ala Lys Tyr Met His Lys Asp Ala Lys Lys Gly Phe Ile 200 Arg Leu Asp Met Ser Glu Phe Gln Glu Arg His Glu Val Ala Lys Phe 215 220 Ile Gly Ser Pro Pro Gly Tyr Val Gly His Glu Glu Gly Gly Gln Leu 230 235 Thr Lys Lys Leu Lys Gln Cys Pro Asn Ala Val Val Leu Phe Asp Glu 245 250 Val Asp Lys Ala His Pro Asp Val Leu Thr Ile Met Leu Gln Leu Phe 265 Asp Glu Gly Arg Leu Thr Asp Gly Lys Gly Lys Thr Ile Asp Cys Lys 280 Asp Ala Ile Phe Ile Met Thr Ser Asn Val Ala Ser Asp Glu Ile Ala 295 300 Gln His Ala Leu Gln Leu Arg Gln Glu Ala Leu Glu Met Ser Arg Asn 310 315 Arg Ile Ala Glu Asn Leu Gly Asp Val Gln Ile Ser Asp Lys Ile Thr 325 330 Ile Ser Lys Asn Phe Lys Glu Asn Val Ile Arg Pro Ile Leu Lys Ala 340 345 350 His Phe Arg Arg Asp Glu Phe Leu Gly Arg Ile Asn Glu Ile Val Tyr 360 365 Phe Leu Pro Phe Cys His Ser Glu Leu Ile Gln Leu Val Asn Lys Glu 375 380 Leu Asn Phe Trp Ala Lys Arg Ala Lys Gln Arg His Asn Ile Thr Leu 390 395 Leu Trp Asp Arg Glu Val Ala Asp Val Leu Val Asp Gly Tyr Asn Val 405 410 His Tyr Gly Ala Arg Ser Ile Lys His Glu Val Glu Arg Arg Val Gly 425 Asn Gln Leu Ala Ala Ala Tyr Glu Gln Asp Leu Leu Pro Gly Gly Cys

<210> 1136 <211> 81 <212>Amino acid <213> Homo sapiens

<210> 1137 <211> 260 <212>Amino acid <213> Homo sapiens

<400> 1137 His Thr Pro Met Ala Phe Phe Leu Ser Phe Leu Ser Thr Ser Glu Thr 1.0 Val Tyr Thr Phe Val Ile Leu Pro Lys Met Leu Ile Asn Leu Leu Ser 20 25 Val Ala Arg Thr Ile Ser Phe Asn Cys Cys Ala Leu Gln Met Phe Phe 40 Phe Leu Gly Phe Ala Ile Thr Asn Cys Leu Leu Leu Gly Val Met Gly 55 60 Tyr Asp Arg Tyr Ala Ala Ile Cys His Pro Leu His Tyr Pro Thr Leu 70 75 Met Ser Trp Gln Val Cys Gly Lys Leu Ala Ala Ala Cys Ala Ile Gly 85 90 Gly Phe Leu Ala Ser Leu Thr Val Val Asn Leu Val Phe Ser Leu Pro 100 105 110 Phe Cys Ser Thr Asn Lys Val Asn His Tyr Phe Cys Asp Ile Ser Ala 120 125 Val Ile Leu Leu Ala Cys Thr Asn Thr Asp Val Asn Gly Phe Val Ile 135 140 Phe Ile Cys Gly Val Leu Val Leu Val Pro Phe Leu Phe Ile Cys

150 155 Val Ser Tyr Phe Cys Ile Leu Arg Thr Ile Leu Lys Ile Pro Ser Ala 165 170 Glu Gly Arg Arg Lys Ala Phe Ser Thr Cys Ala Ser His Leu Ser Val 180 185 Val Ile Val His Tyr Gly Cys Ala Ser Phe Ile Tyr Leu Arg Pro Thr 200 Ala Asn Tyr Val Ser Asn Lys Asp Arg Leu Val Thr Val Thr Tyr Thr 215 Ile Val Thr Pro Leu Leu Asn Pro Met Val Tyr Ser Leu Arg Asn Lys 230 235 Asp Val Gln Leu Ala Ile Arg Lys Val Leu Gly Lys Lys Gly Ser Leu 250 Lys Leu Tyr Asn 260

200

<210> 1138 <211> 393 <212>Amino acid <213> Homo sapiens

<400> 1138 Arg Pro Pro Ala Ala Thr Arg Tyr Pro Arg Glu Lys Leu Lys Ser Mat 5 10 Thr Ser Arg Asp Asn Tyr Lys Ala Gly Ser Arg Glu Ala Ala Ala Ala 2.0 25 35 40 Pro Tyr Pro Val Ser Gly Ala Lys Arg Lys Tyr Leu Glu Asp Ser Asp Pro Glu Arg Ser Asp Tyr Glu Glu Gln Gln Leu Gln Glu Glu Glu Glu Ala Arg Lys Val Lys Ser Gly Ile Arg Gln Met Arg Leu Phe Ser Gln Asp Glu Cys Ala Lys Ile Glu Ala Arg Ile Asp Glu Val Val Ser Arg 100 105 Ala Glu Lys Gly Leu Tyr Asn Glu His Thr Val Asp Arg Ala Pro Leu 120 Arg Asn Lys Tyr Phe Phe Gly Glu Gly Tyr Thr Tyr Gly Ala Gln Leu 135 140 Gln Lys Arg Gly Pro Gly Gln Glu Arg Leu Tyr Pro Pro Gly Asp Val 155 Asp Glu Ile Pro Glu Trp Val His Gln Leu Val Ile Gln Lys Leu Val 170 Glu His Arg Val Ile Pro Glu Gly Phe Val Asn Ser Ala Val Ile Asn 185 Asp Tyr Gln Pro Gly Gly Cys Ile Val Ser His Val Asp Pro Ile His 200 Ile Phe Glu Arg Pro Ile Val Ser Val Ser Phe Phe Ser Asp Ser Ala 215 Leu Cys Phe Gly Cys Lys Phe Gln Phe Lys Pro Ile Arg Val Ser Glu 230 235 Pro Val Leu Ser Leu Pro Val Arg Arg Gly Ser Val Thr Val Leu Ser 245 250 Gly Tyr Ala Ala Asp Glu Ile Thr His Cys Ile Arg Pro Gln Asp Ile 265 270 Lys Glu Arg Arg Ala Val Ile Ile Leu Arg Lys Thr Arg Leu Asp Ala 280 285 Pro Arg Leu Glu Thr Lys Ser Leu Ser Ser Ser Val Leu Pro Pro Ser

295 300 Tyr Ala Ser Asp Arg Leu Ser Gly Asn Asn Arg Asp Pro Ala Leu Lys 310 315 Pro Lys Arg Ser His Arg Lys Ala Asp Pro Asp Ala Ala His Arg Pro 325 330 Arg Ile Leu Glu Met Asp Lys Glu Glu Asn Arg Arg Ser Val Leu Leu 340 345 Pro Thr His Arg Arg Arg Gly Ser Phe Ser Ser Glu Asn Tyr Trp Arg 360 365 Lys Ser Tyr Glu Ser Ser Glu Asp Cys Ser Glu Ala Ala Gly Ser Pro 370 375 Ala Arg Lys Val Lys Met Arg Arg His 390 393

<210> 1139 <211> 545 <212>Amino acid <213> Homo sapiens

<400> 1139 Val Thr Trp His Phe Tyr Phe Cys Ser Asp His Lys Asn Gly His Tyr 5 10 Ile Ile Pro Gln Met Ala Asp Arg Ser Arg Gln Lys Cys Met Ser Gln 25 Ser Leu Asp Leu Ser Glu Leu Ala Lys Ala Ala Lys Lys Lys Leu Gln 40 Ala Leu Ser Asn Arg Leu Phe Glu Glu Leu Ala Met Asp Val Tyr Asp 55 Glu Val Asp Arg Arg Glu Asn Asp Ala Val Trp Leu Ala Thr Gln Asn 70 75 His Ser Thr Leu Val Thr Glu Arg Ser Ala Val Pro Phe Leu Pro Val 85 90 Asn Pro Glu Tyr Ser Ala Thr Arg Asn Gln Gly Arg Gln Lys Leu Ala 100 105 Arg Phe Asn Ala Arg Glu Phe Ala Thr Leu Ile Ile Asp Ile Leu Ser 120 Glu Ala Lys Arg Arg Gln Gln Gly Lys Ser Leu Ser Ser Pro Thr Asp 135 Asn Leu Glu Leu Ser Leu Arg Ser Gln Ser Asp Leu Asp Asp Gln His 150 155 160 Asp Tyr Asp Ser Val Ala Ser Asp Glu Asp Thr Asp Gln Glu Pro Leu 165 170 Arg Ser Thr Gly Ala Thr Arg Ser Asn Arg Ala Arg Ser Met Asp Ser 185 Ser Asp Leu Ser Asp Gly Ala Val Thr Leu Gln Glu Tyr Leu Glu Leu 200 Lys Lys Ala Leu Ala Thr Ser Glu Ala Lys Val Gln Gln Leu Met Lys 215 220 Val Asn Ser Ser Leu Ser Asp Glu Leu Arg Arg Leu Gln Arg Glu His 230 235 Phe Ala Pro Ile Ile His Lys Leu Gln Ala Glu Asn Leu Gln Leu Arg 245 250 Gln Pro Pro Gly Pro Val Pro Thr Pro Pro Leu Pro Ser Glu Arg Ala 260 265 Glu His Thr Pro Met Ala Pro Gly Gly Ser Thr His Arg Arg Asp Arg 280 Gln Ala Phe Ser Met Tyr Glu Pro Gly Ser Ala Leu Lys Pro Phe Gly 295 300 Gly Pro Pro Gly Asp Glu Leu Thr Thr Arg Leu Gln Pro Phe His Ser

```
310
                                   315
Thr Glu Leu Glu Asp Asp Ala Ile Tyr Ser Val His Val Pro Ala Gly
              325
                               330
Leu Tyr Arg Ile Arg Lys Gly Val Ser Ala Ser Ala Val Pro Phe Thr
                            345
Pro Ser Ser Pro Leu Leu Ser Cys Ser Gln Glu Gly Ser Arg His Thr
                        360
Ser Lys Leu Ser Arg His Gly Ser Gly Ala Asp Ser Asp Tyr Glu Asn
           375
Thr Gln Ser Gly Asp Pro Leu Leu Gly Leu Glu Gly Lys Arg Phe Leu
                 390
                                   395
Glu Leu Gly Lys Glu Glu Asp Phe His Pro Glu Leu Glu Ser Leu Asp
                                410
Gly Asp Leu Asp Pro Gly Leu Pro Ser Thr Glu Asp Val Ile Leu Lys
                    425`
                                   . 430
Thr Glu Gln Val Thr Lys Asn Ile Gln Glu Leu Leu Arg Ala Ala Gln
Glu Phe Lys His Asp Ser Phe Val Pro Cys Ser Glu Lys Ile His Leu
                     455
                           460
Ala Val Thr Glu Met Ala Ser Leu Phe Pro Lys Arg Pro Ala Leu Glu
                 470 475
Pro Val Arg Ser Ser Leu Arg Leu Leu Asn Ala Ser Ala Tyr Arg Leu
             485 490
Gln Ser Glu Cys Arg Lys Thr Val Pro Pro Glu Pro Gly Ala Pro Val
          500
                            505
Asp Phe Gln Leu Leu Thr Gln Gln Val Ile Gln Cys Ala Tyr Asp Ile
                     520
Ala Lys Ala Ala Lys Gln Leu Val Thr Ile Thr Thr Arg Glu Lys Lys
            535
Gln
545
```

<210> 1140 <211> 621 <212>Amino acid <213> Homo sapiens

<400> 1140 Arg Tyr Leu Ser Tyr Gly Ser Gly Pro Lys Arg Phe Pro Leu Val Asp 1.0 Val Leu Gln Tyr Ala Leu Glu Phe Ala Ser Ser Lys Pro Val Cys Thr 25 Ser Pro Val Asp Asp Ile Asp Ala Ser Ser Pro Pro Ser Gly Ser Ile 40 Pro Ser Gln Thr Leu Pro Ser Thr Thr Glu Gln Gln Gly Ala Leu Ser . 55 Ser Glu Leu Pro Ser Thr Ser Pro Ser Ser Val Ala Ala Ile Ser Ser 70 75 Arg Ser Val Ile His Lys Pro Phe Thr Gln Ser Arg Ile Pro Pro Asp 90 Leu Pro Met His Pro Ala Pro Arg His Ile Thr Glu Glu Glu Leu Ser 100 105 Val Leu Glu Ser Cys Leu His Arg Trp Arg Thr Glu Ile Glu Asn Asp 120 Thr Arg Asp Leu Gln Glu Ser Ile Ser Arg Ile His Arg Thr Ile Glu 135 140 Leu Met Tyr Ser Asp Lys Ser Met Ile Gln Val Pro Tyr Arg Leu His 155 Ala Val Leu Val His Glu Gly Gln Ala Asn Ala Gly His Tyr Trp Ala

```
165
                                 170
Tyr Ile Phe Asp His Arg Glu Ser Arg Trp Met Lys Tyr Asn Asp Ile
                             185
Ala Val Thr Lys Ser Ser Trp Glu Glu Leu Val Arg Asp Ser Phe Gly
                                             205
Gly Tyr Arg Asn Ala Ser Ala Tyr Cys Leu Met Tyr Ile Asn Asp Lys
                      215
                            220
Ala Gln Phe Leu Ile Gln Glu Glu Phe Asn Lys Glu Thr Gly Gln Pro
                  230
                                  235
Leu Val Gly Ile Glu Thr Leu Pro Pro Asp Leu Arg Asp Phe Val Glu
               245
                                 250
Glu Asp Asn Gln Arg Phe Glu Lys Glu Leu Glu Glu Trp Asp Ala Gln
                              265
Leu Ala Gln Lys Ala Leu Gln Glu Lys Leu Leu Ala Ser Gln Lys Leu
                         280
                                             285
Arg Glu Ser Glu Thr Ser Val Thr Thr Ala Gln Ala Ala Gly Asp Pro
                     295
                                         300
Lys Tyr Leu Glu Gln Pro Ser Arg Ser Asp Phe Ser Lys His Leu Lys
                  310
                                     315
Glu Glu Thr Ile Gln Ile Ile Thr Lys Ala Ser His Glu His Glu Asp
              325
                                 330
Lys Ser Pro Glu Thr Val Leu Gln Ser Ala Ile Lys Leu Glu Tyr Ala
                             345
Arg Leu Val Lys Leu Ala Gln Glu Asp Thr Pro Pro Glu Thr Asp Tyr
                          360
Arg Leu His His Val Val Val Tyr Phe Ile Gln Asn Gln Ala Pro Lys
                      375
                                         380
Lys Ile Ile Glu Lys Thr Leu Leu Glu Gln Phe Gly Asp Arg Asn Leu
                  390
                                     395
Ser Phe Asp Glu Arg Cys His Asn Ile Met Lys Val Ala Gln Ala Lys
                                 410
Leu Glu Met Ile Lys Pro Glu Glu Val Asn Leu Glu Glu Tyr Glu Glu
                             425
Trp His Gln Asp Tyr Arg Lys Phe Arg Glu Thr Thr Met Tyr Leu Ile
                          440
                                            445
Ile Gly Leu Glu Asn Phe Gln Arg Glu Ser Tyr Ile Asp Ser Leu Leu
                      455
                                         460
Phe Leu Ile Cys Ala Tyr Gln Asn Asn Lys Glu Leu Leu Ser Lys Gly
                  470
                                     475
Leu Tyr Arg Gly His Asp Glu Glu Leu Ile Ser His Tyr Arg Arg Glu
                                 490
              485
Cys Leu Leu Lys Leu Asn Glu Gln Ala Ala Glu Leu Phe Glu Ser Gly
          500
                             505
Glu Asp Arg Glu Val Asn Asn Gly Leu Ile Ile Met Asn Glu Phe Ile
                         520
Val Pro Phe Leu Pro Leu Leu Leu Val Asp Glu Met Glu Glu Lys Asp
                      535
Ile Leu Ala Val Glu Asp Met Arg Asn Arg Trp Cys Ser Tyr Leu Gly
                                     555
Gln Glu Met Glu Pro His Leu Gln Glu Lys Leu Thr Asp Phe Leu Pro
              565
                                 570
Lys Leu Leu Asp Cys Ser Met Glu Ile Lys Ser Phe His Glu Pro Pro
                              585
Lys Leu Pro Ser Tyr Ser Thr His Glu Leu Cys Glu Arg Phe Ala Arg
      595
             600
Ile Met Leu Ser Leu Ser Arg Thr Pro Ala Asp Gly Arg
                     615
                                         620 621
```

<210> 1141

<211> 154

<212>Amino acid

<213> Homo sapiens

```
<400> 1141
Ala Gln Val Tyr Val Arg Met Asp Ser Phe Asp Glu Asp Leu Ala Arg
                           10
Pro Ser Gly Leu Leu Ala Gln Glu Arg Lys Leu Cys Arg Asp Leu Val
                            25
                                              30
His Ser Asn Lys Lys Glu Gln Glu Phe Arg Ser Ile Phe Gln His Ile
    35
                         4.0
Gln Ser Ala Gln Ser Gln Arg Ser Pro Ser Glu Leu Phe Ala Gln His
                    55
Met Val Pro Ile Val His His Val Lys Glu His His Phe Gly Ser Ser
                 70
Gly Met Thr Leu His Glu Arg Phe Thr Lys Tyr Leu Lys Arg Gly Thr
              85
Glu Gln Glu Ala Ala Lys Asn Lys Lys Ser Pro Glu Ile His Arg Arg
                        105
Ile Asp Ile Ser Pro Ser Thr Phe Arg Lys His Gly Leu Ala His Asp
      115 120
Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr Lys Asp Gly His Asn Ser
                    135
Lys Asn Glu Leu Gln Arg Val Asn Phe Tyr
                150 154
```

<210> 1142 <211> 121 <212>Amino acid

<213> Homo sapiens

<400> 1142 Thr Tyr Thr Phe Cys Phe Ser Leu Met Ile Ile Leu Leu Thr Ile Ile 10 Gln Gly Leu Ile Leu Glu Ala Phe Gly Glu Leu Arg Asp Gln Leu Asp 20 25 Gln Val Lys Glu Asp Met Glu Thr Lys Cys Phe Ile Cys Gly Ile Gly 40 Asn Asp Tyr Phe Asp Thr Val Pro His Gly Phe Glu Thr His Thr Leu 55 Gln Glu His Asn Leu Ala Asn Tyr Leu Phe Phe Leu Met Tyr Leu Ile 75 Asn Lys Asp Glu Thr Glu His Thr Gly Gln Glu Ser Tyr Val Trp Lys 90 Met Tyr Gln Glu Arg Cys Trp Glu Phe Phe Pro Ala Gly Asp Cys Phe 1.00 105 Arg Lys Gln Tyr Glu Asp Gln Leu Asn 115 120 121

<210> 1143 <211> 851 <212>Amino acid <213> Homo sapiens

<400> 1143 Phe Arg Arg Lys Gly Gly Gly Pro Lys Asp Phe Gly Ala Gly Leu 1.0 Lys Tyr Asn Ser Arg His Glu Lys Val Asn Gly Leu Glu Glu Gly Val Glu Phe Leu Pro Val Asn Asn Val Lys Lys Val Glu Lys His Gly Pro Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly Leu Leu Leu Val Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln Tyr Arg Asp Val Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile Thr Asn Glu Asn 90 Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu Phe Val Ser Leu 105 Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr Ser Gly Val Pro 120 125 115 Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr Ala Phe Ser Glu 135 Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser Ile Pro Gln His 150 155 Leu Val Glu Glu Ala Glu Arg Val Met Ala Glu Glu Arg Val Val Met 165 170 Leu Pro Pro Arg Ala Arg Ser Leu Lys Ser Phe Val Val Thr Ser Val 180 185 Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg Thr Gln Asp Asn 200 Ser Cys Ser Phe Gly Leu His Ala Arg Gly Val Glu Leu Met Arg Phe 215 220 Thr Thr Pro Gly Phe Pro Asp Ser Pro Tyr Pro Ala His Ala Arg Cys 230 235 Gln Trp Ala Leu Arg Gly Asp Ala Asp Ser Val Leu Ser Leu Thr Phe 250 Arg Ser Phe Asp Leu Ala Ser Cys Asp Glu Arg Gly Arg His Leu Val 265 Thr Val Tyr Asn Thr Leu Ser Pro Met Glu Pro His Ala Leu Val Gln 280 Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr Phe His Ser Ser 300 Gln Asn Val Leu Leu Ile Thr Leu Ile Thr Asn Thr Glu Arg Arg His 315 Pro Gly Phe Glu Ala Thr Phe Phe Gln Leu Pro Arg Met Ser Ser Cys 330 Gly Gly Arg Leu Arg Lys Ala Gln Gly Thr Phe Asn Ser Pro Tyr Tyr 345 Pro Gly His Tyr Pro Pro Asn Ile Asp Cys Thr Trp Asn Ile Glu Val 360 Pro Asn Asn Gln His Val Lys Val Arg Phe Lys Phe Phe Tyr Leu Leu 375 380 Glu Pro Gly Val Pro Ala Gly Thr Cys Pro Lys Asp Tyr Val Glu Ile 390 395 Asn Gly Glu Lys Tyr Cys Gly Glu Arg Ser Gln Phe Val Val Thr Ser 405 410 Asn Ser Asn Lys Ile Thr Val Arg Phe His Ser Asp Gln Ser Tyr Thr 425 Asp Thr Gly Phe Leu Ala Glu Tyr Leu Ser Tyr Asp Ser Ser Asp Pro 440 Cys Pro Gly Gln Phe Thr Cys Arg Thr Gly Arg Cys Ile Arg Lys Glu 455 460 Leu Arg Cys Asp Gly Trp Ala Asp Cys Thr Asp His Ser Asp Glu Leu 470 475 Asn Cys Ser Cys Asp Ala Gly His Gln Phe Thr Cys Lys Asn Lys Phe 485 490 Cys Lys Pro Leu Phe Trp Val Cys Asp Ser Leu Asn Asp Cys Gly Asp

```
505
Asn Ser Asp Glu Gln Gly Cys Ser Cys Pro Ala Gln Thr Phe Arg Cys
     51.5
                         520
Ser Asn Gly Lys Cys Leu Ser Lys Ser Gln Gln Cys Asn Gly Lys Asp
                     535
                                        540
Asp Cys Gly Asp Gly Ser Asp Glu Ala Ser Cys Pro Lys Val Asn Val
                  550
                                   555
Val Thr Cys Thr Lys His Thr Tyr Arg Cys Leu Asn Gly Leu Cys Leu
              565
                                570
Ser Lys Gly Asn Pro Glu Cys Asp Gly Lys Glu Asp Cys Ser Asp Gly
                             585
Ser Asp Glu Lys Asp Cys Asp Cys Gly Leu Arg Ser Phe Thr Arg Gln
                         600
Ala Arg Val Val Gly Gly Thr Asp Ala Asp Glu Gly Glu Trp Pro Trp
                      615
                                       620
Gln Val Ser Leu His Ala Leu Gly Gln Gly His Ile Cys Gly Ala Ser
                  630
                                    635
Leu Ile Ser Pro Asn Trp Leu Val Ser Ala Ala His Cys Tyr Ile Asp
                                650
Asp Arg Gly Phe Arg Tyr Ser Asp Pro Thr Gln Trp Thr Ala Phe Leu
                            665
Gly Leu His Asp Gln Ser Gln Arg Ser Ala Pro Gly Val Gln Glu Arg
                         680
Arg Leu Lys Arg Ile Ile Ser His Pro Phe Phe Asn Asp Phe Thr Phe
                     695
                                        700
Asp Tyr Asp Ile Ala Leu Leu Glu Leu Glu Lys Pro Ala Glu Tyr Ser
                 710
                                    715
Ser Met Val Arg Pro Ile Cys Leu Pro Asp Ala Ser His Val Phe Pro
              725
                                730
Ala Gly Lys Ala Ile Trp Val Thr Gly Trp Gly His Thr Gln Tyr Gly
           740
                            745
Gly Thr Gly Ala Leu Ile Leu Gln Lys Gly Glu Ile Arg Val Ile Asn
       755
               760
Gln Thr Thr Cys Glu Asn Leu Leu Pro Gln Gln Ile Thr Pro Arg Met
             775
Met Cys Val Gly Phe Leu Ser Gly Gly Val Asp Ser Cys Gln Gly Asp
              790
                                    795
Ser Gly Gly Pro Leu Ser Ser Val Glu Ala Asp Gly Arg Ile Phe Gln
              805
                                810
Ala Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln Arg Asn Lys Pro
                            825
Gly Val Tyr Thr Arg Leu Pro Leu Phe Arg Asp Trp Ile Lys Glu Asn
                         840
Thr Gly Val
   850 851
```

<210> 1144 <211> 346

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) . . . (346)

<223> X = any amino acid or stop code

Asp Cys Ser Phe Phe Val Arg Gly Gln Glu Phe Lys Ala His Lys Ser 20 25 Val Leu Ala Ala Arg Ser Pro Val Phe Asn Ala Met Phe Glu His Glu 40 Met Glu Glu Ser Lys Lys Asn Arg Val Glu Ile Asn Asp Leu Asp Pro Glu Val Phe Lys Glu Met Met Arg Phe Ile Tyr Thr Gly Arg Ala Pro Asn Leu Asp Lys Met Ala Asp Asn Leu Leu Ala Ala Ala Asp Lys Tyr 90 Ala Leu Glu Arg Leu Lys Val Met Cys Glu Lys Ala Leu Cys Ser Asn 105 Leu Ser Val Glu Asn Val Ala Asp Thr Leu Val Leu Ala Asp Leu His 120 Ser Ala Glu Gln Leu Lys Ala Gln Ala Ile Asp Phe Ile Asn Arg Cys 135 140 Ser Val Leu Arg Gln Leu Gly Cys Lys Asp Gly Lys Asn Trp Asn Ser 150 155 Asn Gln Ala Thr Asp Ile Met Glu Thr Ser Gly Gly Lys Ser Met Ile 165 170 Gln Ser His Pro His Leu Val Ala Glu Ala Phe Arg Ala Leu Ala Ser 180 185 Ala Gln Gly Pro Gln Phe Gly Ile Pro Arg Lys Arg Leu Lys Gln Ser 200 Xaa Asn Leu Gly Asn Leu Trp Glu Asn Thr Arg Phe Thr Asp Cys Ser 215 220 Phe Phe Val Arg Gly Gln Glu Phe Lys Ala His Lys Ser Val Leu Ala 230 235 Ala Arg Ser Pro Val Phe Asn Ala Met Phe Glu His Glu Met Glu Glu 245 250 Ser Lys Lys Asn Arg Val Glu Ile Asn Asp Leu Asp Pro Glu Val Phe 265 Lys Glu Met Met Arg Phe Ile Tyr Thr Gly Arg Ala Pro Asn Leu Asp 275 · 280 Lys Met Ala Asp Asn Leu Leu Ala Ala Ala Asp Lys Tyr Ala Leu Glu 295 300 Arg Leu Lys Val Met Cys Glu Lys Ala Leu Cys Ser Asn Leu Ser Val 310 315 . 320 Glu Asn Val Ala Asp Thr Leu Val Leu Ala Asp Leu His Ser Gly Arg 325 . 335 330 Thr Val Glu Ser Thr Ser His Arg Leu Tyr

345 346

<210> 1145 <211> 339

<212>Amino acid

<213> Homo sapiens

<220> <221> misc_feature <222> (1) . . . (339)

<223> X = any amino acid or stop code

<400> 1145 Gln Arg Gly Gly Ile Pro Gly Lys Phe Gln Glu Asp Ser Gly Ser Val 1.0 Asp Trp Ala Leu Gly Pro Phe Trp Gly Ile Phe Gln Ala Asp Phe Gly 20 25 Cys Met Arg Phe Tyr Leu Ser Ala Gln Thr Ser Asp Pro Val Leu Arg

40 Met Xaa Trp Glv Pro Ser Pro Ile Ser His Pro Thr Ser Leu Cvs Pro .55 Gly Gly Gly Gly Ala Gly Gln Thr Thr Gly Ser Leu Cys Leu Gly Gln Gln Cys Cys Pro Leu Ser Cys Pro Asn Ile Pro Ser Arg His Lys Arg 85 90 Trp Arg Leu Xaa Ala Ala Leu Val Ala Gly Ser Arg Gly Ser Cys Thr 105 Leu Arg Ser Xaa Arg Xaa Arg Thr Pro Leu Pro Val Thr Arg Asn Leu 120 125 Pro Arg Cys His Leu His Leu His Pro Thr Gly Asp Leu Arg Val His 135 140 Val His Gln His Cys Leu Leu His Gly His Val Pro Pro Gly Ala Ala 150 155 Leu Leu Gln Cys Gly Gly Cys Asp Leu Arg Gly Glu Ala Ala Gly Leu .165 170 175 Leu Phe Leu Gly His Ala Cys Leu Arg Gly Ser Val Asn Leu Arg Arg 180 185 Asp Gln Trp Leu Pro Val Pro Tyr Ser Arg Leu Cys Phe Ser Gly Ala 195 200 205 Arg Glu Gly His Leu Pro Ser Leu Leu Ala Met Ile His Val Arg His 215 220 Cys Thr Pro Ile Pro Ala Leu Leu Val Cys Pro Ile Lys Val Asn Leu 230 235 Leu Ile Pro Val Ala Tyr Leu Val Phe Trp Ala Phe Leu Leu Val Phe 245 250 Ser Phe Ile Ser Glu His Met Val Cys Gly Val Gly Val Ile Ile Ile 265 Leu Thr Gly Val Pro Ile Phe Phe Leu Gly Val Phe Trp Arg Ser Lys 280 Pro Lys Cys Val His Arg Leu Thr Glu Ser Met Thr His Trp Gly Gln 295 300 Glu Leu Cys Phe Val Val Tyr Pro Gln Asp Ala Pro Glu Glu Glu Glu 310 . 315 Asn Gly Pro Cys Pro Pro Ser Leu Leu Pro Ala Thr Asp Lys Pro Ser 330 Lys Pro Gln

339

<210> 1146 <211> 425 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature <222> (1) ... (425)

<223> X = any amino acid or stop code

<400> 1146 Ala Ala Ala Leu Val Ala Glu Tyr Leu Ala Leu Leu Glu Asp His Arg 10 His Leu Pro Val Gly Cys Val Ser Phe Gln Asn Ile Ser Ser Asn Val 25 Leu Glu Glu Ser Ala Ile Ser Asp Asp Ile Leu Ser Pro Asp Glu Glu 40 Gly Phe Cys Ser Gly Lys His Phe Thr Glu Leu Gly Leu Val Gly Leu

```
Leu Glu Gln Ala Ala Gly Tyr Phe Thr Met Gly Gly Leu Tyr Glu Ala
Val Asn Glu Val Tyr Lys Asn Leu Ile Pro Ile Leu Glu Ala His Arg
                                   90
Asp Tyr Lys Lys Leu Ala Ala Val His Gly Lys Leu Gln Glu Ala Phe
           7.00
                               105
Thr Lys Ile Met His Gln Ser Ser Gly Trp Glu Arg Val Phe Gly Thr
                           120
                                              125
Tyr Phe Arg Val Gly Phe Tyr Gly Ala His Phe Gly Asp Leu Asp Glu
                      135
                                          140
Gln Glu Phe Val Tyr Lys Glu Pro Ser Ile Thr Lys Leu Ala Glu Ile
                   150
                                      155
Ser His Arg Leu Glu Glu Phe Tyr Thr Glu Arg Phe Gly Asp Asp Val
               165
                                  170
                                                      175
Val Glu Ile Ile Lys Asp Ser Asn Pro Val Asp Lys Ser Lys Leu Asp
           180
                              185
                                                 190
Ser Gln Lys Ala Tyr Ile Gln Ile Thr Tyr Val Glu Pro Tyr Phe Asp
      195
                          200
                                              205
Thr Tyr Glu Leu Lys Asp Arg Val Thr Tyr Phe Asp Arg Asn Tyr Gly
                       215
                                         220
Leu Arg Thr Phe Leu Phe Cys Thr Pro Phe Thr Pro Asp Gly Arg Ala
                  230
                               235
His Gly Glu Leu Pro Glu Gln His Lys Arg Lys Thr Leu Leu Ser Thr
               245
                                  250
Asp His Ala Phe Pro Tyr Ile Lys Thr Arg Ile Arg Val Cys His Arg
           260
                              265
Glu Glu Thr Val Leu Thr Pro Val Glu Val Ala Ile Glu Asp Met Gln
                          280
Lys Lys Thr Arg Glu Leu Ala Phe Ala Thr Glu Gln Asp Pro Pro Asp
                      295
                                          3.00
Ala Lys Met Leu Gln Met Val Leu Gln Gly Ser Val Gly Pro Thr Val
                  310
                                      315
Asn Gln Gly Pro Leu Glu Val Ala Gln Val Phe Leu Ala Glu Ile Pro
               325
                                  330
Glu Asp Pro Lys Leu Phe Arg His His Asn Lys Leu Arg Leu Cys Phe
           340
                              345
Lys Asp Phe Xaa Lys Lys Cys Glu Asp Ala Leu Arg Lys Asn Lys Ala
                           360
                                              365
Leu Ile Gly Pro Asp Gln Lys Glu Tyr His Arg Glu Leu Glu Arg Asn
                      375
                                          380
Tyr Cys Arg Leu Arg Glu Ala Leu Gln Pro Leu Leu Thr Gln Arg Leu
                  390
                                      395
Pro Gln Leu Met Ala Pro Thr Pro Pro Gly Leu Arg Asn Ser Leu Asn
               405
                                  410
Arg Ala Ser Phe Arg Lys Ala Asp Leu
          420
```

<210> 1147

<212>Amino acid <213> Homo sapiens

<220>

<211> 198

<221> misc_feature <222> (1)...(198)

<223> X = any amino acid or stop code

<400> 1147 Gly Glu Gly Gln Gln Trp Gln Ser Thr Pro Leu Ser Pro Leu Gln Pro

Thr Val Ala Asp Phe Leu Asn Leu Ala Trp Trp Thr Ser Ala Ala Ala 25 Trp Xaa Val Leu Ser Gly Arg Trp Val Glu Lys Val Leu Pro Gly Arg Glu Gly Ser Glu Glu Lys Xaa Gly Met Ala Ser Ser Ser Ala Asp His Leu His Ser Ala Pro Arg Ala Leu Gln Ser Leu Phe Gln Gln Leu Leu 75 Tyr Gly Leu Ile Tyr His Ser Trp Phe Gln Ala Gly Arg Xaa Gly Phe 90 Gly Gly Ala Ser Ser Ser Pro Gly Pro Gln Ser Glu Leu Arg Arg Leu 100 105 His Gly Glu Gly Gly Val Tyr Asp Xaa Gly Arg Pro Glu Thr Leu Pro 120 125 Gly Ser Val Gly Gly Ala Glu Ala Leu Trp Ala Leu Ala Asp Pro Ala 135 140 Glu Ala Glu Gly Ser Pro Glu Thr Arg Glu Ser Ser Cys Val Met Lys 150 155 Gln Thr Gln Tyr Tyr Phe Gly Ser Val Asn Ala Ser Tyr Asn Ala Ile Ile Asp Cys Gly Asn Cys Ser Arg Cys Trp Gln Trp Gly Gly Thr Arg 180 185 Gly Gln Gly Arg Asn Leu 195 198

<210> 1148 <211> 317

<212>Amino acid <213> Homo sapiens

<400> 1148 Val Ala Gly Ile Pro Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu Ala 10 Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Ser Lys Pro Thr Phe Arg 25 Ala Val Glu Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr 40 Glu Asn Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu 55 Ser Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Glu Ser Leu 70 75 Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser Trp 85 90 Pro Trp Gln Val Ser Ile Gln Tyr Asp Lys Gln His Val Cys Gly Gly 100 105 Ser Ile Leu Asp Pro His Trp Val Leu Thr Ala Ala His Cys Phe Arg 120 125 Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala Gly Ser Asp Lys 135 140 Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys Ile Ile Ile Glu 150 155 Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp Ile Ala Leu Met Lys Leu 165 170 Gln Phe Pro Leu Thr Phe Ser Gly Thr Val Arg Pro Ile Cys Leu Pro 180 185 190 Phe Phe Asp Glu Glu Leu Thr Pro Ala Thr Pro Leu Trp Ile Ile Gly 200 205 Trp Gly Phe Thr Lys Gln Asn Gly Gly Lys Met Ser Asp Ile Leu Leu

215 220 Gln Ala Ser Val Gln Val Ile Asp Ser Thr Arg Cys Asn Ala Asp Asp 235 230 Ala Tyr Gln Gly Glu Val Thr Glu Lys Met Met Cys Ala Gly Ile Pro 245 250 Glu Gly Gly Val Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro Leu Met 260 . 265 Tyr Gln Ser Asp Gln Trp His Val Val Gly Ile Val Ser Trp Gly Tyr 275 280 Gly Cys Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr Lys Val Ser Ala 295 Tyr Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu Leu 305 310

<210> 1149 <211> 320 <212>Amino acid <213> Homo sapiens

<400> 1149 Thr Ile Ser Thr Val Arg Trp Asn Ser Arg Ile Gly Met Val Leu Gly 5 7.0 Val Ala Ile Gln Lys Arg Ala Val Pro Gly Leu Tyr Ala Phe Glu Glu 20 25 Ala Tyr Ala Arg Ala Asp Lys Glu Ala Pro Arg Pro Cys His Lys Gly 40 Ser Trp Cys Ser Ser Asn Gln Leu Cys Arg Glu Cys Gln Ala Phe Met 55 Ala His Thr Met Pro Lys Leu Lys Ala Phe Ser Met Ser Ser Ala Tyr 70 75 Asn Ala Tyr Arg Ala Val Tyr Ala Val Ala His Gly Leu His Gln Leu 85 90 Leu Gly Cys Ala Ser Gly Ala Cys Ser Arg Gly Arg Val Tyr Pro Trp 105 Gln Leu Leu Glu Gln Ile His Lys Val His Phe Leu Leu His Lys Asp 120 Thr Val Ala Phe Asn Asp Asn Arg Asp Pro Leu Ser Ser Tyr Asn Ile 135 140 Ile Ala Trp Asp Trp Asn Gly Pro Lys Trp Thr Phe Thr Val Leu Gly 155 Ser Ser Thr Trp Ser Pro Val Gln Leu Asn Ile Asn Glu Thr Lys Ile 170 Gln Trp His Gly Lys Asp Asn Gln Val Pro Lys Ser Val Cys Ser Ser 185 Asp Cys Leu Glu Gly His Gln Arg Val Val Thr Gly Phe His His Cys 200 Cys Phe Glu Cys Val Pro Cys Gly Ala Gly Thr Phe Leu Asn Lys Ser 215 220 Ser Tyr Leu Gly Lys Asp Leu Pro Glu Asn Tyr Asn Glu Ala Lys Cys 230 235 Val Thr Phe Ser Leu Leu Phe Asn Phe Val Ser Trp Ile Ala Phe Phe 245 250 Thr Thr Ala Ser Val Tyr Asp Gly Lys Tyr Leu Pro Ala Ala Asn Met 260 265 Met Ala Gly Leu Ser Ser Leu Ser Ser Gly Phe Gly Gly Tyr Phe Leu 280 285 Pro Lys Cys Tyr Val Ile Leu Cys Arg Pro Asp Leu Asn Ser Thr Glu 295 300 His Phe Gln Ala Ser Ile Gln Asp Tyr Thr Arg Arg Cys Gly Ser Thr

305 310 315 320

<210> 1150 <211> 458 <212>Amino acid <213> Homo sapiens

<400> 1150 Val Ala Arg Gly Ala Phe His Pro Lys Met Gly Pro Ser Phe Pro Ser 10 Pro Lys Pro Gly Ser Glu Arg Leu Ser Phe Val Ser Ala Lys Gln Ser Thr Gly Gln Asp Thr Glu Ala Glu Leu Gln Asp Ala Thr Leu Ala Leu His Gly Leu Thr Val Glu Asp Glu Gly Asn Tyr Thr Cys Glu Phe Ala . 55 Thr Phe Pro Lys Gly Ser Val Arg Gly Met Thr Trp Leu Arg Val Ile 75 Ala Lys Pro Lys Asn Gln Ala Glu Ala Gln Lys Val Thr Phe Ser Gln 90 Asp Pro Thr Thr Val Ala Leu Cys Ile Ser Lys Glu Gly Arg Pro Pro 105 Ala Arg Ile Ser Trp Leu Ser Ser Leu Asp Trp Glu Ala Lys Glu Thr 120 Gln Val Ser Gly Thr Leu Ala Gly Thr Val Thr Val Thr Ser Arg Phe 135 140 Thr Leu Val Pro Ser Gly Arg Ala Asp Gly Val Thr Val Thr Cys Lys 150 155 Val Glu His Glu Ser Phe Glu Glu Pro Ala Leu Ile Pro Val Thr Leu 170 Ser Val Arg Tyr Pro Pro Glu Val Ser Ile Ser Gly Tyr Asp Asp Asn 180 185 Trp Tyr Leu Gly Arg Thr Asp Ala Thr Leu Ser Cys Asp Val Arg Ser 200 Asn Pro Glu Pro Thr Gly Tyr Asp Trp Ser Thr Thr Ser Gly Thr Phe 215 Pro Thr Ser Ala Val Ala Gln Gly Ser Gln Leu Val Ile His Ala Val 230 235 Asp Ser Leu Phe Asn Thr Thr Phe Val Cys Thr Val Thr Asn Ala Val 245 Gly Met Gly Arg Ala Glu Gln Val Ile Phe Val Arg Glu Thr Pro Asn 260 265 Thr Ala Gly Ala Gly Ala Thr Gly Gly Ile Ile Gly Gly Ile Ile Ala 280 Ala Ile Ile Ala Thr Ala Asp Ala Thr Gly Ile Leu Ile Cys Arg Gln 295 300 Gln Arg Lys Glu Gln Thr Leu Gln Gly Ala Glu Glu Asp Glu Asp Leu 310 315 Glu Gly Pro Pro Ser Tyr Lys Pro Pro Thr Pro Lys Ala Lys Leu Glu 325 330 Ala Gln Glu Met Pro Ser Gln Leu Phe Thr Leu Gly Ala Ser Glu His 340 345 Ser Pro Leu Lys Thr Pro Tyr Phe Asp Ala Gly Ala Ser Cys Thr Glu 360 . 365 Gln Glu Met Pro Arg Tyr His Glu Leu Pro Thr Leu Glu Glu Arg Ser 375 380 Gly Pro Leu His Pro Gly Ala Thr Ser Leu Gly Ser Pro Ile Pro Val

10

390 Pro Pro Gly Pro Pro Ala Val Glu Asp Val Ser Leu Asp Leu Glu Asp 405 -410 Glu Glu Glu Glu Glu Glu Glu Glu Tyr Leu Asp Lys Ile Asn Pro Ile 420 425 430 Tyr Asp Ala Leu Ser Tyr Ser Ser Pro Ser Asp Ser Tyr Gln Gly Lys 440 Gly Phe Val Met Ser Arg Ala Met Tyr Val 455 458

<210> 1151 <211> 608 <212>Amino acid <213> Homo sapiens

Gly Thr Arg Leu Arg Glu Asp Lys Asn His Asn Met Tyr Val Ala Gly 20

<400> 1151

Cys Thr Glu Val Glu Val Lys Ser Thr Glu Glu Ala Phe Glu Val Phe 25 Trp Arg Gly Gln Lys Lys Arg Arg Ile Ala Asn Thr His Leu Asn Arg 40 Glu Ser Ser Arg Ser His Ser Val Phe Asn Ile Lys Leu Val Gln Ala 55 Pro Leu Asp Ala Asp Gly Asp Asn Val Leu Gln Glu Lys Glu Gln Ile 70 Thr Ile Ser Gln Leu Ser Leu Val Asp Leu Ala Gly Ser Glu Arg Thr 85 90 Asn Arg Thr Arg Ala Glu Gly Asn Arg Leu Arg Glu Ala Gly Asn Ile 105 Asn Gln Ser Leu Met Thr Leu Arg Thr Cys Met Asp Val Leu Arg Glu 120 Asn Gln Met Tyr Gly Thr Asn Lys Met Val Pro Tyr Arg Asp Ser Lys 135 Leu Thr His Leu Phe Lys Asn Tyr Phe Asp Gly Glu Gly Lys Val Arg 150 155 Met Ile Val Cys Val Asn Pro Lys Ala Glu Asp Tyr Glu Glu Asn Leu 165 170 Gln Val Met Arg Phe Ala Glu Val Thr Gln Glu Val Glu Val Ala Arg 185 Pro Val Asp Lys Ala Ile Cys Gly Leu Thr Pro Gly Arg Arg Tyr Arg 200 Asn Gln Pro Arg Gly Pro Ile Gly Asn Glu Pro Leu Val Thr Asp Val 215 Val Leu Gln Ser Phe Pro Pro Leu Pro Ser Cys Glu Ile Leu Asp Ile 230 235 Asn Asp Glu Gln Thr Leu Pro Arg Leu Ile Glu Ala Leu Glu Lys Arg 245 250 His Asn Leu Arg Gln Met Met Ile Asp Glu Phe Asn Lys Gln Ser Asn 260 265 Ala Phe Lys Ala Leu Leu Gln Glu Phe Asp Asn Ala Val Leu Ser Lys 275 280 285 Glu Asn His Met Gln Gly Lys Leu Asn Glu Lys Glu Lys Met Ile Ser 295 300 Gly Gln Lys Leu Glu Ile Glu Arg Leu Glu Lys Lys Asn Lys Thr Leu 310 315 Glu Tyr Lys Ile Glu Ile Leu Glu Lys Thr Thr Thr Ile Tyr Glu Glu 330 Asp Lys Arg Asn Leu Gln Gln Glu Leu Glu Thr Gln Asn Gln Lys Leu

```
345
Gln Arg Gln Phe Ser Asp Lys Arg Arg Leu Glu Ala Arg Leu Gln Gly
      355 360
                                         365
Met Val Thr Glu Thr Thr Met Lys Trp Glu Lys Glu Cys Glu Arg Arg
                  375
Val Ala Ala Lys Gln Leu Glu Met Gln Asn Lys Leu Trp Val Lys Asp
                                  395
Glu Lys Leu Lys Gln Leu Lys Ala Ile Val Thr Glu Pro Lys Thr Glu
                            410
Lys Pro Glu Arg Pro Ser Arg Glu Arg Asp Arg Glu Lys Val Thr Gln
          420
                           425
Arg Ser Val Ser Pro Ser Pro Val Pro Leu Leu Phe Gln Pro Asp Gln
                       440 445
Asn Ala Pro Pro Ile Arg Leu Arg His Arg Arg Ser Arg Ser Ala Gly
                    455 460
Asp Arg Trp Val Asp His Lys Pro Ala Ser Asn Met Gln Thr Glu Thr
                 470
                       475
Val Met Gln Pro His Val Pro His Ala Ile Thr Val Ser Val Ala Asn
             485
                               490
Glu Lys Ala Leu Ala Lys Cys Glu Lys Tyr Met Leu Thr His Gln Glu
                           505
Leu Ala Ser Asp Gly Glu Ile Glu Thr Lys Leu Ile Lys Gly Asp Ile
                        520
                                         525
Tyr Lys Thr Arg Gly Gly Gly Gln Ser Val Gln Phe Thr Asp Ile Glu
                    535
                                     540
Thr Leu Lys Gln Glu Ser Pro Asn Gly Ser Arg Lys Arg Arg Ser Ser
                550
                                 555
Thr Val Ala Pro Ala Gln Pro Asp Gly Ala Glu Ser Glu Trp Thr Asp
                              570
Val Glu Thr Arg Cys Ser Val Ala Val Glu Met Arg Ala Gly Ser Gln
                           585
Leu Gly Pro Gly Tyr Gln His His Ala Gln Pro Lys Arg Lys Lys Pro
                                         605 608
```

<210> 1152

<211> 111

<212>Amino acid

<213> Homo sapiens

<400> 1152

Ser Lys Ala Ser Ala Ser Gly Phe Ala Asp Phe Thr Ser Val Ser 100 105 110 111

<210> 1153

<211> 444 <212>Amino acid <213> Homo sapiens

<400> 1153

Met Ser Leu Met Val Val Ser Met Ala Cys Val Gly Leu Phe Leu Val 5 10 Gln Arg Ala Gly Pro His Met Gly Gly Gln Asp Lys Pro Phe Leu Ser 20 25 Ala Trp Pro Ser Ala Val Val Pro Arg Gly Gly His Val Thr Leu Arg 40 Cys His Tyr Arg His Arg Phe Asn Asn Phe Met Leu Tyr Lys Glu Asp 55 Arg Ile His Ile Pro Ile Phe His Gly Arg Ile Phe Gln Glu Ser Phe 70 75 Asn Met Ser Pro Val Thr Thr Ala His Ala Gly Asn Tyr Thr Cys Arg 85 90 Gly Ser His Pro His Ser Pro Thr Gly Trp Ser Ala Pro Ser Asn Pro 105 Val Val Ile Met Val Thr Gly Asn His Arg Lys Pro Ser Leu Leu Ala 120 His Pro Gly Pro Leu Val Lys Ser Gly Glu Arg Val Ile Leu Gln Cys 135 140 Trp Ser Asp Ile Met Phe Glu His Phe Phe Leu His Lys Glu Gly Ile 150 155 Ser Lys Asp Pro Ser Arg Leu Val Gly Gln Ile His Asp Gly Val Ser 165 170 Lys Ala Asn Phe Ser Ile Gly Pro Met Met Gln Asp Leu Ala Gly Thr 185 190 Tyr Arg Cys Tyr Gly Ser Val Thr His Ser Pro Tyr Gln Leu Ser Ala 200 Pro Ser Asp Pro Leu Asp Ile Val Ile Thr Gly Leu Tyr Glu Lys Pro 215 220 Ser Leu Ser Ala Gln Pro Gly Pro Thr Val Leu Ala Gly Glu Ser Val 230 235 Thr Leu Ser Cys Ser Ser Arg Ser Ser Tyr Asp Met Tyr His Leu Ser 245 250 Arg Glu Gly Glu Ala His Glu Arg Arg Phe Ser Ala Gly Pro Lys Val 260 265 Asn Gly Thr Phe Gln Ala Asp Phe Pro Leu Gly Pro Ala Thr His Gly 280 Gly Thr Tyr Arg Cys Phe Gly Ser Phe Arg Asp Ser Pro Tyr Glu Trp 295 300 Ser Asn Ser Ser Asp Pro Leu Leu Val Ser Val Thr Gly Asn Pro Ser 310 315 Asn Ser Trp Pro Ser Pro Thr Glu Pro Ser Ser Glu Thr Gly Asn Pro 325 330 Arg His Leu His Val Leu Ile Gly Thr Ser Val Val Ile Ile Leu Phe 345 340 350 Ile Leu Leu Leu Phe Phe Leu Leu His Arg Trp Cys Ser Asn Lys Lys 360 Asn Ala Ala Val Met Asp Gln Glu Ser Ala Gly Asn Arg Thr Ala Asn 375 380 Ser Glu Asp Ser Asp Glu Gln Asp Pro Gln Glu Val Thr Tyr Thr Gln 390 395 400 Leu Asn His Cys Val Phe Thr Gln Arg Lys Ile Thr Arg Pro Ser Gln 405 410 415 Arg Pro Lys Thr Pro Pro Thr Asp Ile Ile Val Tyr Thr Glu Leu Pro 420 425 Asn Ala Glu Ser Arg Ser Lys Val Val Ser Cys Pro

435 440 444

<210> 1154 <211> 522 <212>Amino acid <213> Homo sapiens

<400> 1154 Met Ser Leu Arg Val His Thr Leu Pro Thr Leu Leu Gly Ala Val Val 5 10 Arg Pro Gly Cys Arg Glu Leu Leu Cys Leu Leu Met Ile Thr Val Thr 20 25 Val Gly Pro Gly Ala Ser Gly Val Cys Pro Thr Ala Cys Ile Cys Ala 40 Thr Asp Ile Val Ser Cys Thr Asn Lys Asn Leu Ser Lys Val Pro Gly 55 Asn Leu Phe Arg Leu Ile Lys Arg Leu Asp Leu Ser Tyr Asn Arg Ile 70 Gly Leu Leu Asp Ser Glu Trp Ile Pro Val Ser Phe Ala Lys Leu Asn 85 Thr Leu Ile Leu Arg His Asn Asn Ile Thr Ser Ile Ser Thr Gly Ser 105 Phe Ser Thr Thr Pro Asn Leu Lys Cys Leu Asp Leu Ser Ser Asn Lys 120 Leu Lys Thr Val Lys Asn Ala Val Phe Gln Glu Leu Lys Val Leu Glu 135 Val Leu Leu Leu Tyr Asn Asn His Ile Ser Tyr Leu Asp Pro Ser Ala 150 155 Phe Gly Gly Leu Ser Gln Leu Gln Lys Leu Tyr Leu Ser Gly Asn Phe 170 Leu Thr Gln Phe Pro Met Asp Leu Tyr Val Gly Arg Phe Lys Leu Ala 185 Glu Leu Met Phe Leu Asp Val Ser Tyr Asn Arg Ile Pro Ser Met Pro .200 Met His His Ile Asn Leu Val Pro Gly Lys Gln Leu Arg Gly Ile Tyr 215 220 Leu His Gly Asn Pro Phe Val Cys Asp Cys Ser Leu Val Ser Leu Leu 230 235 Val Phe Trp Tyr Arg Arg His Phe Ser Ser Val Met Asp Phe Lys Asn 245 250 Asp Tyr Thr Cys Arg Leu Trp Ser Asp Ser Arg His Ser Arg Gln Val 260 265 Leu Leu Gln Asp Ser Phe Met Asn Cys Ser Asp Ser Ile Ile Asn 280 Gly Ser Phe Arg Ala Leu Gly Phe Ile His Glu Ala Gln Val Gly Glu 295 Arg Leu Met Val His Cys Asp Ser Lys Thr Gly Asn Ala Asn Thr Asp 310 315 Phe Ile Trp Val Gly Pro Asp Asn Arg Leu Leu Glu Pro Asp Lys Glu 330 Met Glu Asn Phe Tyr Val Phe His Asn Gly Ser Leu Val Ile Glu Ser 345 Pro Arg Phe Glu Asp Ala Gly Val Tyr Ser Cys Ile Ala Met Asn Lys 360 365 Gln Arg Leu Leu Asn Glu Thr Val Asp Val Thr Ile Asn Val Ser Asn 375 380 Phe Thr Val Ser Arg Ser His Ala His Glu Ala Phe Asn Thr Ala Phe 390 395 Thr Thr Leu Ala Ala Cys Val Ala Ser Ile Val Leu Val Leu Leu Tyr

<210> 1155 <211> 642 <212>Amino acid <213> Homo sapiens

<400> 1155 Ala Ser Asp Phe Ile Arg Ser Leu Asp His Cys Gly Tyr Leu Ser Leu 5 10 Glu Gly Val Phe Ser His Lys Phe Asp Phe Glu Leu Gln Asp Val Ser 25 Ser Val Asn Glu Asp Val Leu Leu Thr Thr Gly Leu Leu Cys Lys Tyr 40 Thr Ala Gln Arg Phe Lys Pro Lys Tyr Lys Phe Phe His Lys Ser Phe 5.5 Gln Glu Tyr Thr Ala Gly Arg Arg Leu Ser Ser Leu Leu Thr Ser His 70 75 Glu Pro Glu Glu Val Thr Lys Gly Asn Gly Tyr Leu Gln Lys Met Val 85 90 Ser Ile Ser Asp Ile Thr Ser Thr Tyr Ser Ser Leu Leu Arg Tyr Thr 100 105 Cys Gly Ser Ser Val Glu Ala Thr Arg Ala Val Met Lys His Leu Ala 120 Ala Val Tyr Gln His Gly Cys Leu Leu Gly Leu Ser Ile Ala Lys Arg 135 140 Pro Leu Trp Arg Gln Glu Ser Leu Gln Ser Val Lys Asn Thr Thr Glu 150 155 Gln Glu Ile Leu Lys Ala Ile Asn Ile Asn Ser Phe Val Glu Cys Gly 165 170 175 Ile His Leu Tyr Gln Glu Ser Thr Ser Lys Ser Ala Leu Ser Gln Glu 180 185 Phe Glu Ala Phe Phe Gln Gly Lys Ser Leu Tyr Ile Asn Ser Gly Asn 195 200 205 Ile Pro Asp Tyr Leu Phe Asp Phe Phe Glu His Leu Pro Asn Cys Ala 215 220 Ser Ala Leu Asp Phe Ile Lys Leu Gly Phe Tyr Gly Gly Ala Met Ala 230 235 Ser Trp Glu Lys Ala Ala Glu Asp Thr Gly Gly Ile His Met Glu Glu 245 250 Ala Pro Glu Thr Tyr Ile Pro Ser Arg Ala Val Ser Leu Phe Phe Asn 260 265 Trp Lys Gln Glu Phe Arg Thr Leu Glu Val Thr Leu Arg Asp Phe Ser 280 Lys Leu Asn Lys Gln Asp Ile Arg Tyr Leu Gly Lys Ile Phe Ser Ser

```
295
                                          300
Ala Thr Ser Leu Arg Leu Gln Ile Lys Arg Cys Ala Gly Val Ala Gly
                   31,0
                             315
Ser Leu Ser Leu Val Leu Ser Thr Cys Lys Asn Ile Tyr Ser Leu Met
              325
                                  330
Val Glu Ala Ser Pro Leu Thr Ile Glu Asp Glu Arg His Ile Thr Ser
                               345
Val Thr Asn Leu Lys Thr Leu Ser Ile His Asp Leu Gln Asn Gln Arg
                          360
                                     365
Leu Pro Gly Gly Leu Thr Asp Ser Leu Gly Asn Leu Lys Asn Leu Thr
                      375
                                         380
Lys Leu Ile Met Asp Asn Ile Lys Met Asn Glu Glu Asp Ala Ile Lys
385
                  390
                                     395
Leu Ala Glu Gly Leu Lys Asn Leu Lys Lys Met Cys Leu Phe His Leu
               405
                                  410
Thr His Leu Ser Asp Ile Gly Glu Gly Met Asp Tyr Ile Val Lys Ser
                              425
Leu Ser Ser Glu Pro Cys Asp Leu Glu Glu Ile Gln Leu Val Ser Cys
                          440
Cys Leu Ser Ala Asn Ala Val Lys Ile Leu Ala Gln Asn Leu His Asn
                      455
                                          460
Leu Val Lys Leu Ser Ile Leu Asp Leu Ser Glu Asn Tyr Leu Glu Lys
                  470
                                      475
Asp Gly Asn Glu Ala Leu His Glu Leu Ile Asp Arg Met Asn Val Leu
                                  490
Glu Gln Leu Thr Ala Leu Met Leu Pro Trp Gly Cys Asp Val Gln Gly
                              505
Ser Leu Ser Ser Leu Leu Lys His Leu Glu Glu Val Pro Gln Leu Val
                          520
Lys Leu Gly Leu Lys Asn Trp Arg Leu Thr Asp Thr Glu Ile Arg Ile
                      535
                                          540
Leu Gly Ala Phe Phe Gly Lys Asn Pro Leu Lys Asn Phe Gln Gln Leu
                  550
                                     555
Asn Leu Ala Gly Asn Arg Val Ser Ser Asp Gly Trp Leu Ala Phe Met
                                  570
Gly Val Phe Glu Asn Leu Lys Gln Leu Val Phe Phe Asp Phe Ser Thr
                              585
Lys Glu Phe Leu Pro Asp Pro Ala Leu Val Arg Lys Leu Ser Gln Val
                          600
                                              605
Leu Ser Lys Leu Thr Phe Leu Gln Glu Ala Arg Leu Val Gly Trp Gln
                      615
Phe Asp Asp Asp Leu Ser Val Ile Thr Gly Ala Phe Lys Leu Val
                  630
                                     635
Thr Ala
   642
```

<210> 1156 <211> 125 <212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(125)

<223> X = any amino acid or stop code

 $<\!400\!>$ 1156 Ala Ser Asp Arg Lys Val Ala Met Thr Cys Asp Cys Phe Trp Phe Arg 1 5 10 15

Thr Met Leu Asp Gln His Ala Ser Cys Met Glu Val Gly Thr Glu Arq 25 Glu Arg Gln Ala Gly Gly Leu Val Met Phe Asp Pro Ser Gly Phe Pro Thr Gly Glu Lys Val Leu Gln Asp Asp Glu Phe Thr Cys Asp Leu Phe 55 60 Arg Phe Leu Gln Leu Leu Cys Glu Gly His Asn Ser Gly Leu Xaa Val 75 Pro Gly Thr Ser Asp Asp Thr Lys Ala Xaa Ile Met Phe Ser Ser Gln 85 90 Xaa Xaa Gln Glu Pro Val Ser Ser Asn Tyr Ala Ser Phe Xaa Arg Gln 100 105 Gln Ile Ile Leu Glu His Gly Ser Ala Leu Gly Ser Gly 120

<210> 1157 <211> 91 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(91)

<223> X = any amino acid or stop code

<210 > 1158
<211> 254
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(254)
<223> X = any amino acid or stop code

 $^{\circ}$ 4400> 1158 Ser Lys Phe Ile Phe Tyr Val Asp Ser Gln Ser Met Ile Phe Phe Phe 1 5 10 15 Gln Thr Pro Thr Arg His Lys Val Leu Ile Met Glu Phe Cys Pro Cys 20 20 25

Gly Ser Leu Tyr Thr Val Leu Glu Glu Pro Ser Asn Ala Tyr Gly Leu 40 Pro Glu Ser Glu Phe Leu Ile Val Leu Arg Asp Val Val Gly Gly Met 55 Asn His Leu Arg Glu Asn Gly Ile Val His Arg Asp Ile Lys Pro Gly 70 Asn Ile Met Arg Val Ile Gly Glu Asp Gly Gln Ser Val Tyr Lys Leu 85 90 Thr Asp Phe Gly Ala Ala Arg Glu Leu Glu Asp Asp Glu Gln Phe Val 100 Ser Leu Tyr Gly Thr Glu Glu Tyr Leu His Pro Asp Met Tyr Glu Arg 115 120 Ala Val Leu Arg Lys Asp His Gln Lys Lys Tyr Gly Ala Thr Val Asp 135 1.40 Leu Trp Ser Ile Gly Val Thr Phe Tyr Gln Gly Lys Pro Thr Gly Ser 150 155 Leu Ala Ile Xaa His Pro Phe Glu Gly Ala Ser Val Arg Asn Lys Ala 165 170 Ser Asp Gly Ile Lys Ile Ile Thr Gly Lys Gly Leu Leu Gly Ala Ile 185 180 Ser Gly Val Gln Lys Ser Lys Lys Asn Gly Pro Ile Asp Trp Glu Trp 200 205 Glu Asp Met Pro Val Ser Cys Ser Pro Ser Ser Gly Val Leu Arg Val 220 215 Pro Asn Leu Pro Pro Val Leu Ala Asn Ile Leu Glu Ser Arg Ser Arg 230 235 Lys Lys Cys Trp Gly Phe Xaa Pro Ser Phe Leu Gln Glu Asn 245 250

<210> 1159 <211> 162 <212>Amino acid <213> Homo sapiens

<400> 1159 Gly Ser Thr Ile Ser Cys Glu Arg Ser Leu Arg Ser Leu Trp Thr Ala His Trp Ala Leu Pro Glu Met Asp Ser Arg Ile Pro Tyr Asp Asp Tyr 20 2.5 Pro Val Val Phe Leu Pro Ala Tyr Glu Asn Pro Pro Ala Trp Ile Pro 40 Pro His Glu Arg Val His His Pro Asp Tyr Asn Asn Glu Leu Thr Gln 55 Phe Leu Pro Arg Thr Ile Thr Leu Lys Lys Pro Pro Gly Ala Gln Leu 70 75 Gly Phe Asn Ile Arg Gly Gly Lys Ala Ser Gln Leu Gly Ile Phe Ile 90 Ser Lys Val Ile Pro Asp Ser Asp Ala His Arg Ala Gly Leu Gln Glu 105 Gly Asp Gln Val Leu Ala Val Asn Asp Val Asp Phe Gln Asp Ile Glu 120 His Ser Lys Ala Val Glu Ile Leu Lys Thr Ala Arg Glu Ile Ser Met 135 140 Arg Val Arg Phe Phe Pro Tyr Asn Tyr His Arg Gln Lys Glu Arg Thr 145 150 Val His 162

<210> 1160 <211> 295 <212>Amino acid <213> Homo sapiens

<400> 1160 His Glu Gln Val Ser Ala Leu His Arg Arg Ile Lys Ala Ile Val Glu 10 Val Ala Ala Met Cys Gly Val Asn Ile Ile Cys Phe Gln Glu Ala Trp 25 Thr Met Pro Phe Ala Phe Cys Thr Arg Glu Lys Leu Pro Trp Thr Glu 40 Phe Ala Glu Ser Ala Glu Asp Gly Pro Thr Thr Arg Phe Cys Gln Lys Leu Ala Lys Asn His Asp Met Val Val Val Ser Pro Ile Leu Glu Arg 70 75 Asp Ser Glu His Gly Asp Val Leu Trp Asn Thr Ala Val Val Ile Ser 85 90 Asn Ser Gly Ala Val Leu Gly Lys Thr Arg Lys Asn His Ile Pro Arg 100 105 Val Gly Asp Phe Asn Glu Ser Thr Tyr Tyr Met Glu Gly Asn Leu Gly 115 120 125 His Pro Val Phe Gln Thr Gln Phe Gly Arg Ile Ala Val Asn Ile Cys 135 140 Tyr Gly Arg His His Pro Leu Asn Trp Leu Met Tyr Ser Ile Asn Gly 150 155 Ala Glu Ile Ile Phe Asn Pro Ser Ala Thr Ile Gly Ala Leu Ser Glu 165 170 Ser Leu Trp Pro Ile Glu Ala Arg Asn Ala Ala Ile Ala Asn His Cys 185 Phe Thr Cys Ala Ile Asn Arg Val Gly Thr Glu His Phe Pro Asn Glu 200 Phe Thr Ser Gly Asp Gly Lys Lys Ala His Gln Asp Phe Gly Tyr Phe 215 220 Tyr Gly Ser Ser Tyr Val Ala Ala Pro Asp Ser Ser Arg Thr Pro Gly 230 235 Leu Ser Arg Ser Arg Asp Gly Leu Leu Val Ala Lys Leu Asp Leu Asn 245 250 Leu Cys Gln Gln Val Asn Asp Val Trp Asn Phe Lys Met Thr Gly Arg 265 Tyr Glu Met Tyr Ala Arg Glu Leu Ala Glu Ala Val Lys Ser Asn Tyr 275 280 Ser Pro Thr Ile Val Lys Glu 290

<210> 1161 <211> 1621 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(1621) <223> X = any amino acid or stop code

<400> 1161 Met Ala Lys Ser Gly Gly Cys Gly Ala Gly Ala Gly Val Gly Gly Asn Gly Ala Leu Thr Trp Val Asn Asn Ala Ala Lys Lys Glu Glu Ser Glu Thr Ala Asn Lys Asn Asp Ser Ser Lys Lys Leu Ser Val Glu Arq Val Tyr Gln Lys Lys Thr Gln Leu Glu His Ile Leu Leu Arg Pro Asp Thr Tyr Ile Gly Ser Val Glu Pro Leu Thr Gln Phe Met Trp Val Tyr 75 Asp Glu Asp Val Gly Met Asn Cys Arg Glu Val Thr Phe Val Pro Gly 85 90 Leu Tyr Lys Ile Phe Asp Glu Ile Leu Val Asn Ala Ala Asp Asn Lys 100 105 Gln Arg Asp Lys Asn Met Thr Cys Ile Lys Val Ser Ile Asp Pro Glu 120 125 Ser Asn Ile Ile Ser Ile Trp Asn Asn Gly Lys Gly Ile Pro Val Val 135 140 Glu His Lys Val Glu Lys Val Tyr Val Pro Ala Leu Ile Phe Gly Gln 150 155 Leu Leu Thr Ser Ser Asn Tyr Asp Asp Glu Lys Lys Val Thr Gly 165 170 Gly Arg Asn Gly Tyr Gly Ala Lys Leu Cys Asn Ile Phe Ser Thr Lys 185 Phe Thr Val Glu Thr Ala Cys Lys Glu Tyr Lys His Ser Phe Lys Gln 200 Thr Trp Met Asn Asn Met Met Lys Thr Ser Glu Ala Lys Ile Lys His 215 Phe Asp Gly Glu Asp Tyr Thr Cys Ile Thr Phe Gln Pro Asp Leu Ser 230 235 Lys Phe Lys Met Glu Lys Leu Asp Lys Asp Ile Val Ala Leu Met Thr 245 250 Arg Arg Ala Tyr Asp Leu Ala Gly Ser Cys Arg Gly Val Lys Val Met 265 Phe Asn Gly Lys Lys Leu Pro Val Asn Gly Phe Arg Ser Tyr Val Asp 280 Leu Tyr Val Lys Asp Lys Leu Asp Glu Thr Gly Val Ala Leu Lys Val 295 300 Ile His Glu Leu Ala Asn Glu Arg Trp Asp Val Cys Leu Thr Leu Ser 310 315 Glu Lys Gly Phe Gln Gln Ile Ser Phe Val Asn Ser Ile Ala Thr Thr 325 330 Lys Gly Gly Arg His Val Asp Tyr Val Val Asp Gln Val Val Gly Lys 340 345 Leu Ile Glu Val Val Lys Lys Lys Asn Lys Ala Gly Val Ser Val Lys 360 Pro Phe Gln Val Lys Asn His Ile Trp Val Phe Ile Asn Cys Leu Ile 375 380 Glu Asn Pro Thr Phe Asp Ser Gln Thr Lys Glu Asn Met Thr Leu Gln 390 395 Pro Lys Ser Phe Gly Ser Lys Cys Gln Leu Ser Glu Lys Phe Phe Lys 405 410 Ala Ala Ser Asn Cys Gly Ile Val Glu Ser Ile Leu Asn Trp Val Lys 425 Phe Lys Ala Gln Thr Gln Leu Asn Lys Lys Cys Ser Ser Val Lys Tyr 440 Ser Lys Ile Lys Gly Ile Pro Lys Leu Asp Asp Ala Asn Asp Ala Gly 455 460 Gly Lys His Ser Leu Glu Cys Thr Leu Ile Leu Thr Glu Gly Asp Ser 470 475 Ala Lys Ser Leu Ala Val Ser Gly Leu Gly Val Ile Gly Arg Asp Arg 490 Tyr Gly Val Phe Pro Leu Arg Gly Lys Ile Leu Asn Val Arg Glu Ala

```
505
                                                   51.0
Ser His Lys Gln Ile Met Glu Asn Ala Glu Ile Asn Asn Ile Ile Lys
                                        525
Ile Val Gly Leu Gln Tyr Lys Lys Ser Tyr Asp Asp Ala Gln Ser Leu
                                           540
Lys Thr Leu Arg Tyr Gly Lys Ile Met Ile Met Thr Asp Gln Asp Gln
                                       555
Asp Gly Ser His Ile Lys Gly Leu Leu Ile Asn Phe Ile His His Asn
                                   570
Trp Pro Ser Leu Leu Lys His Gly Phe Leu Glu Glu Phe Ile Thr Pro
                               585
Ile Val Lys Ala Ser Lys Asn Lys Gln Glu Leu Ser Phe Tyr Ser Ile
                           600
Pro Glu Phe Asp Glu Trp Lys Lys His Ile Glu Asn Gln Lys Ala Trp
                       615
                                           620
Lys Ile Lys Tyr Tyr Lys Gly Leu Gly Thr Ser Thr Ala Lys Glu Ala
                   630
                                       635
Lys Glu Tyr Phe Ala Asp Met Glu Arg His Arg Ile Leu Phe Arg Tyr
               645
                                   650
Ala Gly Pro Glu Asp Asp Ala Ala Ile Thr Leu Ala Phe Ser Lys Lys
                               665
Lys Ile Asp Asp Arg Lys Glu Trp Leu Thr Asn Phe Met Glu Asp Arg
                           680
Arg Gln Arg Arg Leu His Gly Leu Pro Glu Gln Phe Leu Tyr Gly Thr
                       695
                                           700
Ala Thr Lys His Leu Thr Tyr Asn Asp Phe Ile Asn Lys Glu Leu Ile
                   710
                                       715
Leu Phe Ser Asn Ser Asp Asn Glu Arg Ser Ile Pro Ser Leu Val Asp
               725
                                   730
Gly Phe Lys Pro Gly Gln Arg Lys Val Leu Phe Thr Cys Phe Lys Arg
           740
                               745
Asn Asp Lys Arg Glu Val Lys Val Ala Gln Leu Ala Gly Ser Val Ala
                           760
                                               765
Glu Met Ser Ala Tyr His His Gly Glu Gln Ala Leu Met Met Thr Ile
                       775
                                           780
Val Asn Leu Ala Gln Asn Phe Val Gly Ser Asn Asn Ile Asn Leu Leu
                   790
                                       795
Gln Pro Ile Gly Gln Phe Gly Thr Arg Leu His Gly Gly Lys Asp Ala
               805
                                   810
Ala Ser Pro Arg Tyr Ile Phe Thr Met Leu Ser Thr Leu Ala Arg Leu
                               825
Leu Phe Pro Ala Val Asp Asp Asn Leu Leu Lys Phe Leu Tyr Asp Asp
                           840
Asn Gln Arg Val Glu Pro Glu Trp Tyr Ile Pro Ile Ile Pro Met Val
                       855
Leu Ile Asn Gly Ala Glu Gly Ile Gly Thr Gly Trp Ala Cys Lys Leu
                   870
                                       875
Pro Asn Tyr Asp Ala Arg Glu Ile Val Asn Asn Val Arg Arg Met Leu
               885
                                  890
Asp Gly Leu Asp Pro His Pro Met Leu Pro Asn Tyr Lys Asn Phe Lys
                               905
           900
Gly Thr Ile Gln Glu Leu Gly Gln Asn Gln Tyr Ala Val Ser Gly Glu
        915 '
                           920
                                              925
Ile Phe Val Val Asp Arg Asn Thr Val Glu Ile Thr Glu Leu Pro Val
                       935
                                           940
Arg Thr Trp Thr Gln Val Tyr Lys Glu Gln Val Leu Glu Pro Met Leu
                                      955
Asn Gly Thr Asp Lys Thr Pro Ala Leu Ile Ser Asp Tyr Lys Glu Tyr
               965
                                  970
His Thr Asp Thr Thr Val Lys Phe Val Val Lys Met Thr Glu Glu Lys
                              985
Leu Ala Gln Ala Glu Ala Ala Gly Leu His Lys Val Phe Lys Leu Gln
                         1000
Thr Thr Leu Thr Cys Asn Ser Met Val Leu Phe Asp His Met Gly Cys
```

1015 Leu Lys Lys Tyr Glu Thr Val Gln Asp Ile Leu Lys Glu Phe Phe Asp 1030 1035 Leu Arg Leu Ser Tyr Tyr Gly Leu Arg Lys Glu Trp Leu Val Gly Met 1045 1050 1055 Leu Gly Ala Glu Phe Thr Lys Leu Asn Asn Gln Ala Arg Phe Ile Leu 1060 1065 1070 Glu Lys Ile Gln Gly Lys Ile Thr Ile Kaa Asn Arg Ser Lys Lys Asp 1075 1085 1080 Leu Ile Gln Met Leu Val Gln Arg Gly Tyr Glu Ser Asp Pro Val Lys - 1090 1095 1100 Ala Trp Lys Glu Ala Gln Glu Lys Ala Ala Glu Glu Asp Glu Thr Gln 1110 1115 Asn Gln His Asp Asp Ser Ser Ser Asp Ser Gly Thr Pro Ser Gly Pro 1125 1130 1135 Asp Phe Asn Tyr Ile Leu Asn Met Ser Leu Trp Ser Leu Thr Lys Glu 1140 1145 1150 Lys Val Glu Glu Leu Ile Lys Gln Arg Asp Ala Lys Gly Arg Glu Val 1155 1160 1165 Asn Asp Leu Lys Arg Lys Ser Pro Ser Asp Leu Trp Lys Glu Asp Leu 1175 1180 Ala Ala Phe Val Glu Glu Leu Asp Lys Val Glu Ser Gln Glu Arg Glu 1190 1195 Asp Val Leu Ala Gly Met Ser Gly Lys Ala Ile Lys Gly Lys Val Gly 1205 1210 1216 Lys Pro Lys Val Lys Lys Leu Gln Leu Glu Glu Thr Met Pro Ser Pro 1220 1225 Tyr Gly Arg Arg Ile Ile Pro Glu Ile Thr Ala Met Lys Ala Asp Ala 1240 1245 Ser Lys Lys Leu Leu Lys Lys Lys Gly Asp Leu Asp Thr Ala Ala 1255 1260 Val Lys Val Glu Phe Asp Glu Glu Phe Ser Gly Ala Pro Val Glu Gly 1270 1275 Ala Gly Glu Glu Ala Leu Thr Pro Ser Val Pro Ile Asn Lys Gly Pro 1285 1295 1290 Lys Pro Lys Arg Glu Lys Lys Glu Pro Gly Thr Arg Val Arg Lys Thr 1305 Pro Thr Ser Ser Gly Lys Pro Ser Ala Lys Lys Val Lys Lys Arg Asn 1320 1325 Pro Trp Ser Asp Asp Glu Ser Lys Ser Glu Ser Asp Leu Glu Glu Thr 1335 1340 Glu Pro Val Val Ile Pro Arg Asp Ser Leu Leu Arg Arg Ala Ala Ala 1350 1355 Glu Arg Pro Lys Tyr Thr Phe Asp Phe Ser Glu Glu Glu Asp Asp 1365 1370 1375 Ala Asp Asp Asp Asp Asp Asp Asn Asn Asp Leu Glu Glu Leu Lys Val 1385 Lys Ala Ser Pro Ile Thr Asn Asp Gly Glu Asp Glu Phe Val Pro Ser 1400 Asp Gly Leu Asp Lys Asp Glu Tyr Thr Phe Ser Pro Gly Lys Ser Lys 1415 1420 Ala Thr Pro Glu Lys Ser Leu His Asp Lys Lys Ser Gln Asp Phe Gly 1430 1435 Asn Leu Phe Ser Phe Pro Ser Tyr Ser Gln Lys Ser Glu Asp Asp Ser 1450 1445 1455 Ala Lys Phe Asp Ser Asn Glu Glu Asp Ser Ala Ser Val Phe Ser Pro 1465 1470 Ser Phe Gly Leu Lys Gln Thr Asp Lys Val Pro Ser Lys Thr Val Ala 1475 1480 1485 Ala Lys Lys Gly Lys Pro Ser Ser Asp Thr Val Pro Lys Pro Lys Arg 1495 1500 Ala Pro Lys Gln Lys Lys Val Val Glu Ala Val Asn Ser Asp Ser Asp 1510 1515 Ser Glu Phe Gly Ile Pro Lys Lys Thr Thr Thr Pro Lys Gly Lys Gly

1525 1530 1535
Arg Gly Ala Lys Lys Arg Lys Ala Ser Gly Ser Glu Asn Glu Gly Asp
1540 1545 1555
Tyr Asn Pro Gly Arg Lys Thr Ser Lys Thr Thr Ser Lys Lys Pro Lys
1555 1560
Lys Thr Ser Phe Asp Gln Asp Ser Asp Val Asp Ile Phe Pro Ser Asp
1570 1575 1580
Phe Pro Thr Glu Pro Pro Ser Leu Pro Arg Thr Gly Arg Ala Arg Lys
1585 1590 1595 1590
Glu Val Lys Tyr Phe Ala Glu Ser Asp Glu Glu Glu Asp Asp Val Asp
1605
Phe Ala Met Phe Asn
16201621

<210> 1162
<211> 73
<212>Amino acid
<213> Homo sapiens
<220>
<221> miso_feature
<222> (1)...(73)
<223> X = any amino acid or stop code

<210> 1163 <211> 336 <212>Amino acid <213> Homo sapiens

Glu Asn Ser Phe Glu Cys Lys Asp Cys Gly Lys Ala Phe Ser Arg Gly 1 5 10 Tyr Gln Leu Ser His His Gln Lys Ile His Thr Gly Glu Lys Pro Tyr 20 25 30 Glu Cys Lys Glu Cys Lys Lys Ala Phe Arg Trp Gly Asn Gln Leu Thr 35 40 Gln His Gln Lys Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Asp 55 60 Cys Gly Lys Ala Phe Arg Trp Gly Ser Ser Leu Val Ile His Lys Arg 70 . 75 Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Asp Cys Gly Lys Ala 90

Phe Arg Arg Gly Asp Glu Leu Thr Gln His Gln Arg Phe His Thr Gly 105 Glu Lys Asp Tyr Glu Cys Lys Asp Cys Gly Lys Thr Phe Ser Arg Val 115 120 Tyr Lys Leu Ile Gln His Lys Arg Ile His Ser Gly Glu Lys Pro Tyr 135 Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Cys Gly Ser Ser Leu Ile 150 155 Gln His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Gln Glu 170 Cys Gly Lys Ala Phe Thr Arg Val Asn Tyr Leu Thr Gln His Gln Lys Ile His Thr Gly Glu Lys Pro His Glu Cys Lys Glu Cys Gly Lys Ala 205 Phe Arg Trp Gly Ser Ser Leu Val Lys His Glu Arg Ile His Thr Gly 215 220 Glu Lys Pro Tyr Lys Cys Thr Glu Cys Gly Lys Ala Phe Asn Cys Gly 230 235 Tyr His Leu Thr Gln His Glu Arg Ile His Thr Gly Glu Thr Pro Tyr 245 250 Lys Cys Lys Glu Cys Gly Lys Ala Phe Ile Tyr Gly Ser Ser Leu Val $260^{\circ}265$ 265 270 Lys His Glu Arg Ile His Thr Gly Val Lys Pro Tyr Gly Cys Thr Glu 280 285 Cys Gly Lys Ser Phe Ser His Gly His Gln Leu Thr Gln His Gln Lys 300 295 Thr His Ser Gly Ala Lys Ser Tyr Glu Cys Lys Glu Cys Gly Lys Ala 310 315 Cys Asn His Leu Asn His Leu Arg Glu His Gln Arg Ile His Asn Ser 330

<210> 1164 <211> 118 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(118)
<223> X = any amino acid or stop code

-

<400> 1164 His Gln Tyr Leu Asp Asp Leu Tyr Pro Leu His Val Met Thr Ile Leu 10 Leu Lys Ser His Phe Phe Thr Met Leu Lys Arg Pro Val Gly Ser Ser 25 Ser Phe Ala Ser Leu Pro Phe Tyr His Gln Ser Ile Leu Leu Arg Lys Asn Gln Met Lys Arg Lys Lys Thr Gln Gln Asp Leu Thr His Ile Asn 60 Trp Thr Leu Gln Ala Val Ser Ile Gln Thr Cys Ile Trp Leu Gln Lys 70 75 Lys Pro Ser Ser Tyr Phe His Gln Leu Pro Asn Gln Val Leu Xaa Pro 90 Glu Asn Ser Gly Pro Glu Ser Cys Leu Tyr Asp Leu Ala Ala Val Val 100 105 Val His His Gly Ser Gly

115 118

<210> 1165 <211> 146 <212>Amino acid <213> Homo sapiens

<220>
<221> misc feature

<222> (1)...(146) <223> X = any amino acid or stop code

<400> 1165

Xaa Leu Asp Pro Asp Thr Leu Pro Ala Val Ala Thr Leu Leu Met Asp 10 Val Met Phe Tyr Ser Asn Gly Val Lys Asp Pro Met Ala Thr Gly Asp 20 25 Asp Cys Gly His Ile Arg Phe Phe Ser Phe Ser Leu Ile Glu Gly Tyr 40 Ile Ser Leu Val Met Asp Val Gln Thr Gln Gln Arg Phe Pro Ser Asn 55 Leu Leu Phe Thr Ser Ala Ser Gly Glu Leu Trp Lys Met Val Arg Ile 70 75 Gly Gly Gln Pro Leu Gly Phe Gly Pro Val Trp Glu Ser Gly Pro Thr 85 90 Gly Pro Thr Ser Pro Leu Ile Leu Pro Val Thr Pro Ser Ser Ser His 100 105 Arg Gln Ala Ala Ser Gln Val Thr Thr Thr Lys Gln Gly Gln Trp Leu 120 125 Cys Leu Lys Arg Pro Ser Ala Arg Ser Pro Asp His Thr Ala Cys Leu 130 Gly * 145

<210> 1166

<211> 84 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(84) <223> X = any amino acid or stop code

<400> 1166

Glu Ala Pro Leu Thr Ser Val Cys Phe Ser Leu Glu Arg Arg Phe Gly 1 5 10 15 Ser Ser Ser Asn Thr Thr Ser Phe Gly Thr Leu Ala Ser Gln Asn Ala 2 25 Pro Thr Phe Gly Ser Leu Ser Gln Gln Thr Ser Gly Phe Gly Thr Gln 3 5 Ser Ser Gly Phe Ser Gly Phe Gly Ser Cly Phe Gly Phe Ser Phe 5 0 60 Gly Ser Asn Asn Ser Xaa Val Ser Pro Phe Leu Ser Leu Thr Leu Ile

65 70 75 80 Lys Ser Ile Lys 84

<210> 1167 <211> 112 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(112) <223> X = any amino acid or stop code

<210> 1168 <211> 319 <212>Amino acid

<222> (1)...(319) <223> X = any amino acid or stop code

<400> 1168 Thr Leu Trp Ala Gly Pro Gly Leu Cys Pro Gln Ser His Ser Ser Ser 10 Ser Val Pro Ala Pro Trp Glu Pro His Val Glu Arg Ala Leu Arg Thr 20 25 30 Asp Arg Asn Gln Gly Gln Arg Pro Leu Leu Ser Ala Ser Trp Ala Pro 40 45 Ala Pro Ala Arg Pro Leu Phe Leu Thr Ser Pro Val Leu Leu Pro Lys 55 60 Ser Arg Ala Ile Pro Ala Ala Arg Asp Pro Ser Xaa Ala Gly Ile Phe 70 75 Cys Leu Leu Glu Met Ala Gly Gly Gln Ala Ser Val Val Ile Ile Gly

85 90 Ser Ala Gly Val Leu Gly Cys Arg Trp Gly Ser Ser Gly Lys Ser His 100 105 110 Ser Leu Ser Pro Ser Arg Lys Gly Asn Leu His Leu Leu Ser Gln Glu 120 Pro Gln Thr Thr Val Val His Asn Ala Thr Asp Gly Ile Lys Gly Ser 135 140 Thr Glu Ser Cys Asn Thr Thr Thr Glu Asp Glu Asp Leu Lys Val Arg 150 155 Lys Gln Glu Ile Ile Lys Ile Thr Glu Gln Leu Ile Glu Ala Ile Asn 165 170 Asn Gly Asp Phe Glu Ala Tyr Thr Lys Ile Cys Asp Pro Gly Leu Thr 185 Ser Phe Glu Pro Glu Ala Leu Gly Asn Leu Val Glu Gly Met Asp Phe 200 His Lys Phe Tyr Phe Glu Asn Arg Glu Trp Val Arg Ala Ala Asp Ile 215 Leu Leu Pro Ala Pro Leu Pro Leu Cys Leu Cys Leu Leu Leu Thr Phe 230 235 Ser Ser Gln Leu Pro Thr Phe Pro Leu Phe Asp Leu Arg Ala Ala Leu 250 Leu Leu Cys Met Leu Val Pro Leu Cys Pro Asp Gly Cys Arg Gln Ala 265 Pro Leu Lys Ala Leu Leu Ser Ser Lys Cys His Ser Phe Cys Ser 275 280 Cys Phe Val Ala Val Pro Val Thr Thr Ile Lys Leu Thr Tyr Phe Leu 295 300 Pro Gly Ala Val Ala Tyr Ala Cys Asn Pro Asn Thr Leu Gly Gly 310 315

<210> 1169 <211> 96 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} < 400 > \ 1169 \\ \text{S} \\ \text{Slu Arg Ala Gly Ala} \\ \text{Sor Arg Thr Pro Trp Pro Leu His Arg Gln Leu Ser} \\ \text{Ser Gly Ala} \\ \text{Thr Sor Arg Thr Pro Trp Pro Leu His Arg Gln Leu Ser} \\ \text{Met Met Leu Het Leu Ala Gln Ser Asn Pro Gln Leu Phe Ala Leu Met} \\ \text{So} \\ \text{Gly Thr Arg Ala} \\ \text{Gly Thr Arg Ala} \\ \text{Gly II-e Ala Arg Glu Leu Glu Arg} \\ \text{Sor Arg Leu Gln Gln Leu Ser Ala Ala Glu Leu Gln Ser Arg Asn Gln Glower German Gln Glower Glow$

<210> 1170 <211> 145 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(145) <223> X = any amino acid or stop code

<400> 1170 Asn Gly Thr Leu Phe Ile Met Val Met His Ile Lys Asp Leu Val Ser Asp Tyr Lys Glu Xaa Trp Leu Xaa Arg Lys Pro Leu Pro Trp Xaa Glu 25 Ala Leu Leu Leu Arg Asp Cys Phe Phe Phe Kaa Val Thr Glu Asn Gly 3.5 40 Ala Asp Pro Asn Pro Tyr Val Lys Thr Tyr Leu Leu Pro Asp Asn His 55 Lys Thr Ser Lys Arg Lys Thr Lys Ile Ser Arg Lys Thr Arg Asn Pro 70 75 Thr Phe Asn Glu Met Leu Val Tyr Ser Gly Tyr Ser Lys Glu Thr Leu 85 90 Arg Gln Arg Glu Leu Gln Leu Ser Val Leu Ser Ala Glu Ser Leu Arg 100 105 Glu Asn Phe Phe Leu Gly Gly Val Thr Leu Pro Leu Lys Asp Phe Asn 120 Leu Ser Lys Glu Thr Val Lys Trp Tyr Gln Leu Thr Ala Ala Thr Tyr 135 T-e-11

145

<210> 1171 <211> 464 <212>Amino acid <213> Homo sapiens

Leu His Arg Ile Met Gln Leu Ala Val Val Val Ser Gln Val Leu Glu 10 Asn Gly Ser Ser Val Leu Val Cys Leu Glu Glu Gly Trp Asp Ile Thr 2.0 25 Ala Gln Val Thr Ser Leu Val Gln Leu Leu Ser Asp Pro Phe Tyr Arg 40 Thr Leu Glu Gly Phe Gln Met Leu Val Glu Lys Glu Trp Leu Ser Phe 55 Gly His Lys Phe Ser Gln Arg Ser Ser Leu Thr Leu Asn Cys Gln Gly 70 75 Ser Gly Phe Ala Pro Val Phe Leu Gln Phe Leu Asp Cys Val His Gln 90 Val His Asn Gln Tyr Pro Thr Glu Phe Glu Phe Asn Leu Tyr Tyr Leu 110 105 Lys Phe Leu Ala Phe His Tyr Val Ser Asn Arg Phe Lys Thr Phe Leu 120 Leu Asp Ser Asp Tyr Glu Arg Leu Glu His Gly Thr Leu Phe Asp Asp 135 140 Lys Gly Glu Lys His Ala Lys Lys Gly Val Cys Ile Trp Glu Cys Ile 150 155 Asp Arg Met His Lys Arg Ser Pro Ile Phe Phe Asn Tyr Leu Tyr Ser 165 170 Pro Leu Glu Ile Glu Ala Leu Lys Pro Asn Val Asn Val Ser Ser Leu 180 185

Lys Lys Trp Asp Tyr Tyr Ile Glu Glu Thr Leu Ser Thr Gly Pro Ser 200 Tyr Asp Trp Met Met Leu Thr Pro Lys His Phe Pro Ser Glu Asp Ser 215 220 Asp Leu Ala Gly Glu Ala Gly Pro Arg Ser Gln Arg Arg Thr Val Trp 230 Pro Cys Tyr Asp Asp Val Ser Cys Thr Gln Pro Asp Ala Leu Thr Ser 245 Leu Phe Ser Glu Ile Glu Lys Leu Glu His Lys Leu Asn Gln Ala Pro 265 Glu Lys Trp Gln Gln Leu Trp Glu Arg Val Thr Val Asp Leu Lys Glu 275 280 285 Glu Pro Arg Thr Asp Arg Ser Gln Arg His Leu Ser Arg Ser Pro Gly 295 300 Ile Val Ser Thr Asn Leu Pro Ser Tyr Gln Lys Arg Ser Leu Leu His 310 315 Leu Pro Asp Ser Ser Met Gly Glu Glu Gln Asn Ser Ser Ile Ser Pro 325 330 Ser Asn Gly Val Glu Arg Arg Ala Ala Thr Leu Tyr Ser Gln Tyr Thr 345 Ser Lys Asn Asp Glu Asn Arg Ser Phe Glu Gly Thr Leu Tyr Lys Arg 360 365 Gly Ala Leu Leu Lys Gly Trp Lys Pro Arg Trp Phe Val Leu Asp Val 375 380 Thr Lys His Gln Leu Arg Tyr Tyr Asp Ser Gly Glu Asp Thr Ser Cys 390 395 Lys Gly His Ile Asp Leu Ala Glu Val Glu Met Val Ile Pro Ala Gly 405 410 Pro Ser Met Gly Ala Pro Lys His Thr Ser Asp Lys Ala Phe Phe Asp 420 425 Leu Lys Thr Ser Lys Arg Val Tyr Asn Phe Cys Ala Gln Asp Gly Gln 440 Ser Ala Gln Gln Trp Met Asp Lys Ile Gln Ser Cys Ile Ser Asp Ala 455

<210> 1172 <211> 256 <212>Amino acid <213> Homo sapiens

<400> 1172 Glu Val Glu Gly Pro Arg Arg Val Ser Pro Ala Pro Glu Thr Leu Gly 10 Met Glu Glu Ser Val Val Arg Pro Ser Val Phe Val Val Asp Gly Gln 20 25 Thr Asp Ile Pro Phe Thr Arg Leu Gly Arg Ser His Arg Arg Gln Ser 40 Cys Ser Val Ala Arg Val Gly Leu Gly Leu Leu Leu Leu Met Gly Ala Gly Leu Ala Val Gln Gly Trp Phe Leu Leu Gln Leu His Trp Arg 70 75 Leu Gly Glu Met Val Thr Arg Leu Pro Asp Gly Pro Ala Gly Ser Trp 90 Glu Gln Leu Ile Gln Glu Arg Arg Ser His Glu Val Asn Pro Ala Ala 100 105 110 His Leu Thr Gly Ala Asn Ser Ser Leu Thr Gly Ser Gly Gly Pro Leu 115 120

Leu Trp Glu Thr Gln Leu Gly Leu Ala Phe Leu Arg Gly Leu Ser Tyr 135 140 His Asp Gly Ala Leu Val Val Thr Lys Ala Gly Tyr Tyr Tyr Ile Tyr 150 155 Ser Lys Val Gln Leu Gly Gly Val Gly Cys Pro Leu Gly Leu Ala Ser 165 170 Thr Ile Thr His Gly Leu Tyr Lys Arg Thr Pro Arg Tyr Pro Glu Glu 180 185 Leu Glu Leu Leu Val Ser Gln Gln Ser Pro Cys Gly Arg Ala Thr Ser 200 Ser Ser Arg Val Trp Trp Asp Ser Ser Phe Leu Gly Gly Val Val His 215 220 Leu Glu Ala Gly Glu Glu Val Val Val Arg Val Leu Asp Glu Arg Leu 230 235 Val Arg Leu Arg Asp Gly Thr Arg Ser Tyr Phe Gly Ala Phe Met Val 250

<210> 1173 <211> 117 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(117) <223> X = any amino acid or stop code

<400> 1173 Gln Ser Ala Glu Leu Gly Pro Arg Arg Arg Glu Gly Ser Arg Arg Pro Ser Cys Thr Lys Ala Ser Lys Pro Trp Arg Arg Arg Pro Gly Gly Pro 25 Thr Ser Gly Leu Gly Xaa Gly Pro Leu Ser Pro Gly Pro Tyr Gln Cys Arg Pro Ser Leu Pro Ala Gln Leu Tyr Pro Gln Ser Leu Met Ala Ala Ala Thr Leu Arg Thr Pro Thr Gln Val Ser Ala Ala Ser Ser Arg Pro 70 75 His Thr Pro Ser Pro Thr His Val Leu Lys Pro Ser Val Arg Gly Ala 90 Cys Ser Ser Pro Arg Cys Pro Gly Ser Gly Thr Leu Arg Arg Ser Trp 100 105 Val Gly Pro Phe Phe 115 117

<210> 1174 <211> 370 <212>Amino acid <213> Homo sapiens

<400> 1174 Leu Trp Trp Pro Pro Leu Ser Arg His Ala Ala His Arg Gln Trp Pro

10 Gly Pro Thr Ala Pro Arg Gly Leu Gly His Lys Val Lys Gly Arg Gly 25 Ala Ser Pro Ala Ala Met Trp Ser Cys Ser Trp Phe Asn Gly Thr Gly 4.0 Leu Val Glu Glu Leu Pro Ala Cys Gln Asp Leu Gln Leu Gly Leu Ser 55 Leu Leu Ser Leu Leu Gly Leu Val Val Gly Val Pro Val Gly Leu Cys 70 Tyr Asn Ala Leu Leu Val Leu Ala Asn Leu His Ser Lys Ala Ser Met 85 90 Thr Met Pro Asp Val Tyr Phe Val Asn Met Ala Val Ala Gly Leu Val 100 Leu Ser Ala Leu Ala Pro Val His Leu Leu Gly Pro Pro Ser Ser Arg 115 120 125 Trp Ala Leu Trp Ser Val Gly Gly Glu Val His Val Ala Leu Gln Ile 135 140 Pro Phe Asn Val Ser Ser Leu Val Ala Met Tyr Ser Thr Ala Leu Leu 150 155 Ser Leu Asp His Tyr Ile Glu Arg Ala Leu Pro Arg Thr Tyr Met Ala 165 170 Ser Val Tyr Asn Thr Arg His Val Cys Gly Phe Val Trp Gly Gly Ala 185 Leu Leu Thr Ser Phe Ser Ser Leu Leu Phe Tyr Ile Cys Ser His Val 200 205 Ser Thr Arg Ala Leu Glu Cys Ala Lys Met Gln Asn Ala Glu Ala Ala 215 Asp Ala Thr Leu Val Phe Ile Gly Tyr Val Val Pro Ala Leu Ala Thr 230 235 Leu Tyr Ala Leu Val Leu Leu Ser Arg Val Arg Arg Glu Asp Thr Pro 245 250 Leu Asp Arg Asp Thr Gly Arg Leu Glu Pro Ser Ala His Arg Leu Leu 260 265 Val Ala Thr Val Cys Thr Gln Phe Gly Leu Trp Thr Pro His Tyr Leu 280 Ile Leu Leu Gly His Thr Val Ile Ile Ser Arg Gly Lys Pro Val Asp 295 300 Ala His Tyr Leu Gly Leu Leu His Phe Val Lys Asp Phe Ser Lys Leu 310 315 Leu Ala Phe Ser Ser Ser Phe Val Thr Pro Leu Leu Tyr Arg Tyr Met 325 330 335 Asn Gln Ser Phe Pro Ser Lys Leu Gln Arg Leu Met Lys Lys Leu Pro 345 Cys Gly Asp Arg His Cys Ser Pro Asp His Met Gly Val Gln Gln Val Leu Ala 370

<210> 1175 <211> 145

<212>Amino acid

<213> Homo sapiens

40 45 Tyr Met Thr Phe Asp Phe Cys Cys Leu Tyr Phe Ser Thr Val Tyr Ala 55 Pro Ser Phe Lys Tyr Ile Cys Val His Thr Asp Thr His Ile Cys Val 70 75 Cys Val Cys Ile Tyr Leu Ser Ser Val Val Ser Lys Ser Ser Ala Glu 85 90 Ala Asp Gly Val Leu Gln Pro Arg Arg His Pro Ala Ser Leu Leu Ile 100 105 Val Phe Ala Thr Ser Ile Ser Glu Ser Ser Leu Leu Ile Phe Ser Phe 120 125 Gln Lys Thr Glu Ala Lys Leu Ile Val Phe Ala Val Ser Leu Ala Ala 135 Lys 145

<210> 1176 <211> 50 <212>Amino acid <213> Homo sapiens

c400> 1176
Phe Phe Leu Arg Gln Ser Leu Thr Leu Ser Pro Arg Leu Glu Cys 1 5 10 15
Ser Gly Ala Thr Ser Ala Ser Pro Ser Ala Gly Ile Thr Gly Met Ser 20 25 30
His His Ser Gln Pro Ile Val Asn Phe Leu Arg Ala Cys Ile Pro Ile 35 40 45
Ser Lys

<210> 1177 <211> 231 <212>Amino acid <213> Homo sapiens

<400> 1177 Arg Gln His Ala Glu Glu Arg Gly Arg Arg Asn Pro Lys Thr Gly Leu Thr Leu Glu Arg Val Gly Pro Glu Ser Ser Pro Tyr Leu Leu Arg Arg 25 His Gln Arg Gln Gly Gln Glu Gly Glu His Tyr His Ser Cys Val Gln 40 Leu Ala Pro Thr Arg Gly Leu Glu Glu Ser Gly His Gly Pro Leu Ser 55 60 Leu Ala Gly Gly Pro Arg Val Gly Gly Val Ala Ala Ala Ala Thr Glu 70 75 Ala Pro Arg Met Glu Trp Lys Val Lys Val Arg Ser Asp Gly Thr Arg 85 90 Tyr Val Ala Lys Arg Pro Val Arg Asp Arg Leu Leu Lys Ala Arg Ala 100 105 Leu Lys Ile Arg Glu Glu Arg Ser Gly Met Thr Thr Asp Asp Asp Ala 120 Val Ser Glu Met Lys Met Gly Arg Tyr Trp Ser Lys Glu Glu Arg Lys

135 140 Gln His Leu Ile Arg Ala Arg Glu Gln Arg Lys Arg Arg Glu Phe Met 150 155 Met Gln Ser Arg Leu Glu Cys Leu Arg Glu Gln Gln Asn Gly Asp Ser 165 170 Lys Pro Glu Leu Asn Ile Ile Ala Leu Ser His Arg Lys Thr Met Lys 180 185 Lys Arg Asn Lys Lys Ile Leu Asp Asn Trp Ile Thr Ile Gln Glu Met 200 Leu Ala His Gly Ala Arg Ser Ala Asp Gly Lys Arg Val Tyr Asn Pro 215 220 Leu Leu Ser Val Thr Thr Val 225 230 231

<210> 1178 <211> 204 <212>Amino acid <213> Homo sapiens

<400> 1178 Ser Asp Arg Gly Cys Ser Ala Ala Ala Gly Arg Asn Met Thr Ala Val 5 10 Gly Val Gln Ala Gln Arg Pro Leu Gly Gln Arg Gln Pro Arg Arg Ser 20 2.5 Phe Phe Glu Ser Phe Ile Arg Thr Leu Ile Ile Thr Cys Val Ala Leu 35 40 Ala Val Val Leu Ser Ser Val Ser Ile Cys Asp Gly His Trp Leu Leu 55 Ala Glu Asp Arg Leu Phe Gly Leu Trp His Phe Cys Thr Thr Thr Asn 70 Gln Ser Val Pro Ile Cys Phe Arg Asp Leu Gly Gln Ala His Val Pro 85 90 Gly Leu Ala Val Gly Met Gly Leu Val Arg Ser Val Gly Ala Leu Ala 100 105 Val Val Ala Ala Ile Phe Gly Leu Glu Phe Leu Met Val Ser Gln Leu 120 125 Cys Glu Asp Lys His Ser Gln Cys Lys Trp Val Met Gly Ser Ile Leu 135 140 Leu Leu Val Ser Phe Val Leu Ser Ser Gly Gly Leu Leu Gly Phe Val 150 155 Ile Leu Leu Arg Asn Gln Val Thr Leu Ile Gly Phe Thr Leu Met Phe 165 170 Trp Cys Glu Phe Thr Ala Ser Phe Leu Leu Phe Leu Asn Ala Ile Ser 185 Gly Leu His Ile Asn Ser Ile Thr His Pro Trp Glu 200

<210> 1179 <211> 179 <212>Amino acid <213> Homo sapiens

<400> 1179 Gln Ile Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn

10 Leu Glu Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr 25 Pro Asn Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln Ile Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro Glu Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly 75 Val Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr 85 90 Val Ala Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr 100 105 Asp Leu Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe 115 120 125 Met Gly Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu Glu Arg 135 140 His Ser Gln Glu Gln Gly Ser Gly Gly Gln Ala Ser Ala Ala Ser Asn 150 Pro Pro Ser Phe Phe Thr Thr Pro Thr Ser Asp Gly Ala Phe Glu Leu Ala Pro Thr 179

<210> 1180 <211> 159 <212>Amino acid <213> Homo sapiens

<400> 1180 Arg Lys Ser Leu His Glu Asn Lys Leu Lys Arg Leu Gln Glu Lys Val 1.0 Glu Val Leu Glu Ala Lys Lys Glu Glu Leu Glu Thr Glu Asn Gln Val 25 Leu Asn Arg Gln Asn Val Pro Phe Glu Asp Tyr Thr Arg Leu Gln Lys 40 Arg Leu Lys Asp Ile Gln Arg Arg His Asn Glu Phe Arg Ser Leu Ile 55 Leu Val Pro Asn Met Pro Pro Thr Ala Ser Ile Asn Pro Val Ser Phe 70 Gln Ser Ser Ala Met Gly Ser Lys His Gly Thr Thr Ile Ser Ser Ser 85 Tyr Ala Gly Gly Thr Thr Ser Lys Gly Thr Leu Ser Thr Ser Gln Lys 100 105 Thr Arg Arg Thr Gly Asn Asn Thr Lys Lys Thr Thr Arg Gly Thr Trp 120 Ile Phe Arg Arg Met Met Phe Leu Glu Asn Arg Gln Ile Lys Arg Gly 135 140 Glu Val Gly Asp Ser Val Lys Leu Asp Ile Leu Thr Cys Gly Ile 150 155

<210> 1181 <211> 328 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(328) <223> X = any amino acid or stop code

<400> 1181 Gly Arg Pro Gly Ala Gly Ala Ser Glu Leu Phe Pro Ser Val Thr Thr 10 Asp Leu Ser Val Ser Lys Gln Asn Ala Cys Leu Thr Cys Val Asp Phe 25 Val Thr Val His Val Cys Met Gly Phe Trp Gly Ile Gly Pro Gly Ala 40 Leu Ser Thr Ser Cys Ile Pro Tyr Pro Leu Ser His Gly Pro Gly Ser 55 Val Lys Ala Glu Met Leu His Met Tyr Ser Gln Lys Asp Pro Leu Ile 70 75 Leu Cys Val Arg Leu Ala Val Leu Leu Ala Val Thr Leu Thr Val Pro 85 90 Val Val Leu Phe Pro Ile Arg Arg Ala Leu Gln Gln Leu Leu Phe Pro 100 105 Gly Lys Ala Phe Ser Trp Pro Arg His Val Ala Ile Ala Leu Ile Leu 120 Leu Val Leu Val Asn Val Leu Val Ile Cys Val Pro Thr Ile Arg Asp 135 140 Ile Phe Gly Val Ile Gly Ser Thr Ser Ala Pro Ser Leu Ile Phe Ile 150 155 Leu Pro Ser Ile Phe Tyr Leu Arg Ile Val Pro Ser Glu Val Glu Pro 165 170 Phe Leu Ser Trp Pro Lys Ile Gln Ala Leu Cys Phe Gly Val Leu Gly 180 185 Val Leu Phe Met Ala Val Ser Leu Gly Phe Met Phe Ala Asn Trp Ala 200 205 Thr Gly Gln Ser Arg Met Ser Gly His Xaa Ser Gly Pro Ala Gly Pro 215 220 Gly Pro Cys Ala His Ala His Gly Gly Val Arg Ala Ala Pro Xaa Gly 230 235 Pro Ser Cys Pro Thr Cys Gly Gly Gly Trp Phe Pro Xaa Thr Trp Leu 250 Ser Glu Ala Gly Asp Ser Arg Gly Cys Arg Leu Ala His Phe Pro Pro 260 265 Pro Gln Gly Cys Gln Ala Trp Ile Met Ala Leu Ile Pro Thr Pro Thr 280 295 300 Glu Glu Glu Glu Glu Ala Arg Ser Trp Trp Ser Leu Cys Pro Ala 310 315 Gln Ser Ser Leu Pro Pro Pro Gly 325 328

<210> 1182 <211> 144 <212>Amino acid <213> Homo sapiens

<400> 1182
Ile Asm Glu Leu Arg Tyr His Leu Glu Glu Ser Arg Asp Lys Asn Val
1 5 10 15

Leu Leu Cys Leu Glu Glu Arg Asp Trp Asp Pro Gly Leu Ala Ile Ile Asp Asn Leu Met Gln Ser Ile Asn Gln Ser Lys Lys Thr Val Phe Val Leu Thr Lys Lys Tyr Ala Lys Ser Trp Asn Phe Lys Thr Ala Phe Tyr Leu Ala Leu Gln Arg Leu Met Asp Glu Asn Met Asp Val Ile Ile Phe 75 Ile Leu Leu Glu Pro Val Leu Gln His Ser Gln Tyr Leu Arg Leu Arg 90 Gln Arg Ile Cys Lys Ser Ser Ile Leu Gln Trp Pro Asp Asn Pro Lys 100 105 Ala Glu Gly Leu Phe Trp Gln Thr Leu Arg Asn Val Val Leu Thr Glu 115 120 125 Asn Asp Ser Arg Tyr Asn Asn Met Tyr Val Asp Ser Ile Lys Gln Tyr 135

<210> 1183 <211> 484 <212>Amino acid <213> Homo sapiens

<400> 1183 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser 10 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu 25 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met 40 45 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His 55 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly 70 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val 85 90 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Glu Glu Lys Arg Leu 100 105 110 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser 120 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg 135 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile 150 155 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val 165 170 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys 185 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala 200 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe 215 220 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met 230 235 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val 245 250 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln 265

Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu 280 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys 295 300 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu 315 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala 330 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp 345 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn 360 365 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg 375 380 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys 390 395 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Glu 405 410 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp 420 425 430 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly 440 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln 455 460 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser 475 Ser Met Asp Phe 484

<210> 1184 <211> 125

> <212>Amino acid <213> Homo sapiens

<400> 1184 Ile Glu Thr Thr Gln Pro Ser Glu Asp Thr Asn Ala Asn Ser Gln Asp 10 Asn Ser Met Gln Pro Glu Thr Ser Ser Gln Gln Gln Leu Leu Ser Pro 25 Thr Leu Ser Asp Arg Gly Gly Ser Arg Gln Asp Ala Ala Asp Ala Gly 40 Lys Pro Gln Arg Lys Phe Gly Gln Trp Arg Leu Pro Ser Ala Pro Lys Pro Ile Ser His Ser Val Ser Ser Val Asn Leu Arg Phe Gly Gly Arg 70 Thr Thr Met Lys Ser Val Val Cys Lys Met Asn Pro Met Thr Asp Ala 90 Ala Ser Cys Gly Ser Glu Val Lys Lys Trp Trp Thr Arg Gln Leu Thr 100 105 110 Val Glu Ser Asp Glu Ser Gly Asp Asp Leu Leu Asp Ile 115 120

<210> 1185 <211> 73 <212>Amino acid

<212>Amino acid <213> Homo sapiens

<210> 1186 <211> 343 <212>Amino acid <213> Homo sapiens

<400> 1186 Phe Thr Val Phe Ile Leu Gly Ile Thr Ile Arg Pro Leu Val Glu Phe 10 Leu Asp Val Lys Arg Ser Asn Lys Lys Gln Gln Ala Val Ser Glu Glu 25 Ile Tyr Cys Arg Leu Phe Asp His Val Lys Thr Gly Ile Glu Asp Val 40 Cys Gly His Trp Gly His Asn Phe Trp Arg Asp Lys Phe Lys Lys Phe 55 Asp Asp Lys Tyr Leu Arg Lys Leu Leu Ile Arg Glu Asn Gln Pro Lys Ser Ser Ile Val Ser Leu Tyr Lys Lys Leu Glu Ile Lys His Ala Ile 90 Glu Met Ala Glu Thr Gly Met Ile Ser Thr Val Pro Thr Phe Ala Ser 1.05 Leu Asn Asp Cys Arg Glu Glu Lys Ile Arg Lys Val Thr Ser Ser Glu 120 Thr Asp Glu Ile Arg Glu Leu Leu Ser Arg Asn Leu Tyr Gln Ile Arg 135 Gln Arg Thr Leu Ser Tyr Asn Arg His Ser Leu Thr Ala Asp Thr Ser 150 155 Glu Arg Gln Ala Lys Glu Ile Leu Ile Arg Arg Arg His Ser Leu Arg 165 170 Glu Ser Ile Arg Lys Asp Ser Ser Leu Asn Arg Glu His Arg Ala Ser 180 185 Thr Ser Thr Ser Arg Tyr Leu Ser Leu Pro Lys Asn Thr Lys Leu Pro 200 205 Glu Lys Leu Gln Lys Arg Arg Thr Ile Ser Ile Ala Asp Gly Asn Ser 215 220 Ser Asp Ser Asp Ala Asp Ala Gly Thr Thr Val Leu Asn Leu Gln Pro 230 235 240 Arg Ala Arg Arg Phe Leu Pro Glu Gln Phe Ser Lys Lys Ser Pro Gln 245 250 Ser Tyr Lys Met Glu Trp Lys Asn Glu Val Asp Val Asp Ser Gly Arg 260 265 270 Asp Met Pro Ser Thr Pro Pro Thr Pro His Ser Arg Glu Lys Gly Thr 280 285 Gln Thr Ser Gly Leu Leu Gln Gln Pro Leu Leu Ser Lys Asp Gln Ser 295

Gly Ser Glu Arg Glu Asp Ser Leu Thr Glu Gly Ile Pro Pro Lys Pro 310 315 Pro Pro Arg Leu Val Trp Arg Ala Ser Glu Pro Gly Ser Arg Lys Ala 325 330 Arg Phe Gly Ser Glu Lys Pro 340 343

<210> 1187 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1187

His Glu Glu Ala Ser Gly Leu Ser Val Trp Met Gly Lys Gln Met Glu 10 Pro Leu His Ala Val Pro Pro Ala Ala Ile Thr Leu Ile Leu Ser Leu 20 25 Leu Val Ala Val Phe Thr Glu Cys Thr Ser Asn Val Ala Thr Thr Thr 3.5 40 Leu Phe Leu Pro Ile Phe Ala Ser Met Ser Arg Ser Ile Gly Leu Asn 55 60 Pro Leu Tyr Ile Met Leu Pro Cys Thr Leu Ser Ala Ser Phe Ala Phe 70 75 Met Leu Pro Val Ala Thr Pro Pro Asn Ala Ile Val Phe Thr Tyr Gly 85 90 His Leu Lys Val Ala Asp Met Val Lys Thr Gly Val Ile Met Asn Ile 100 105 Ile Gly Val Phe Cys Val Phe Leu Ala Val Asn Thr Trp Gly Arg Ala 120 Ile Phe Asp Leu Asp His Phe Pro Asp Trp Ala Asn Val Thr His Ile 130 Glu Thr 145 146

<210> 1188 <211> 40

<212>Amino acid <213> Homo sapiens

<400> 1188 His Glu Leu Glu Asn Asn Trp Leu Gln His Glu Lys Ala Pro Thr Glu 1.0 Glu Gly Lys Lys Glu Leu Leu Ala Leu Ser Asn Ala Asn Pro Ser Leu 20 . 25 Leu Glu Arg His Cys Ala Tyr Leu 35

<210> 1189 <211> 62 <212>Amino acid

<213> Homo sapiens

<210> 1190 <211> 623 <212>Amino acid <213> Homo sapiens

<400> 1190 Pro Leu Glu Gln Arg Ser Asn Cys Arg Val Asp Pro Arg Val Arg Thr 10 His Thr Met Ala Ser Asp Thr Ser Ser Leu Val Gln Ser His Thr Tyr 25 Lys Lys Arg Glu Pro Ala Asp Val Pro Tyr Gln Thr Gly Gln Leu His 40 Pro Ala Ile Arg Val Ala Asp Leu Leu Gln His Ile Thr Gln Met Lys Cys Ala Glu Gly Tyr Gly Phe Lys Glu Glu Tyr Glu Ser Phe Phe Glu 70 Gly Gln Ser Ala Pro Trp Asp Ser Ala Lys Lys Asp Glu Asn Arg Met 85 90 Lys Asn Arg Tyr Gly Asn Ile Ile Ala Tyr Asp His Ser Arg Val Arg 100 105 Leu Gln Thr Ile Glu Gly Asp Thr Asn Ser Asp Tyr Ile Asn Gly Asn 120 Tyr Ile Asp Gly Tyr His Arg Pro Asn His Tyr Ile Ala Thr Gln Gly 135 140 Pro Met Gln Glu Thr Ile Tyr Asp Phe Trp Arg Met Val Trp His Glu 150 155 Asn Thr Ala Ser Ile Ile Met Val Thr Asn Leu Val Glu Val Gly Arg 170 Val Lys Cys Cys Lys Tyr Trp Pro Asp Asp Thr Glu Ile Tyr Lys Asp 180 185 Ile Lys Val Thr Leu Ile Glu Thr Glu Leu Leu Ala Glu Tyr Val Ile 200 Arg Thr Phe Ala Val Glu Lys Arg Gly Val His Glu Ile Arg Glu Ile 215 220 Arg Gln Phe His Phe Thr Gly Trp Pro Asp His Gly Val Pro Tyr His 230 235 Ala Thr Gly Leu Leu Gly Phe Val Arg Gln Val Lys Ser Lys Ser Pro 245 250 Pro Ser Ala Gly Pro Leu Val Val His Cys Ser Ala Gly Ala Gly Arg 265 Thr Gly Cys Phe Ile Val Ile Asp Ile Met Leu Asp Met Ala Glu Arg 275 280 Glu Gly Val Val Asp Ile Tyr Asn Cys Val Arg Glu Leu Arg Ser Arg 295 300 Arg Val Asn Met Val Gln Thr Glu Glu Gln Tyr Val Phe Ile His Asp 315

Ala Ile Leu Glu Ala Cys Leu Cys Gly Asp Thr Ser Val Pro Ala Ser 325 Gln Val Arg Ser Leu Tyr Tyr Asp Met Asn Lys Leu Asp Pro Gln Thr 340 345 Asn Ser Ser Gln Ile Lys Glu Glu Phe Arg Thr Leu Asn Met Val Thr 360 Pro Thr Leu Arg Val Glu Asp Cys Ser Ile Ala Leu Leu Pro Arg Asn 375 380 His Glu Lys Asn Arg Cys Met Asp Ile Leu Pro Pro Asp Arg Cys Leu 395 Pro Phe Leu Ile Thr Ile Asp Gly Glu Ser Ser Asn Tyr Ile Asn Ala 405 410 Ala Leu Met Asp Ser Tyr Lys Gln Pro Ser Ala Phe Ile Val Thr Gln 420 425 430 His Pro Leu Pro Asn Thr Val Lys Asp Phe Trp Arg Leu Val Leu Asp 440 445 Tyr His Cys Thr Ser Val Val Met Leu Asn Asp Val Asp Pro Ala Gln 455 460 Leu Cys Pro Gln Tyr Trp Pro Glu Asn Gly Val His Arg His Gly Pro 470 475 Ile Gln Val Glu Phe Val Ser Ala Asp Leu Glu Glu Asp Ile Ile Ser 485 490 Arg Ile Phe Arg Ile Tyr Asn Ala Ala Arg Pro Gln Asp Gly Tyr Arg 500 505 510 Met Val Gln Gln Phe Gln Phe Leu Gly Trp Pro Met Tyr Arg Asp Thr 515 520 Pro Val Ser Lys Arg Ser Phe Leu Lys Leu Ile Arg Gln Val Asp Lys 535 Trp Gln Glu Glu Tyr Asn Gly Gly Glu Gly Arg Thr Val Val His Cys 550 555 Leu Asn Gly Gly Gly Arg Ser Gly Thr Phe Cys Ala Ile Ser Ile Val 565 570 Cys Glu Met Leu Arg His Gln Arg Thr Val Asp Val Phe His Ala Val 580 585 590 Lys Thr Leu Arg Asn Asn Lys Pro Asn Met Val Asp Leu Leu Asp Gln 600 Tyr Lys Phe Cys Tyr Glu Val Ala Leu Glu Tyr Leu Asn Ser Gly 615 620 623

<210> 1191 <211> 86

<212>Amino acid

<213> Homo sapiens

 $\begin{array}{c} 4400\text{> }1191\\ \text{Pro Leu Thr Tyr Asn Lys Lys Tyr Thr Tyr Pro Trp Gly Asp Ala} \\ 1 & 5 & 10 & 15\\ \text{Leu Gly Trp Leu Leu Ala Leu Ser Ser Met Val Cys Ile Pro Ala Trp} \\ 20 & 25 & 30\\ \text{Ser Leu Tyr Arg Leu Gly Thr Leu Lys Gly Pro Phe Arg Glu Arg Ile} \\ 35 & 40 & 45\\ \text{So} & 60 & 10\\ \text{Arg Gln Leu Met Cys Pro Ala Glu Asp Leu Pro Gln Arg Asn Pro Ala} \\ 61 & \text{Pro Ser Ala Pro Ala Thr Pro Arg Thr Ser Leu Leu Arg Leu Thr} \\ 65 & 70 & 75\\ \text{Glu Leu Glu Ser His Cys} \end{array}$

<210> 1192 <211> 109 <212>Amino acid <213> Homo sapiens

<400> 1192 Thr Leu Ser Glu Ser Gly Ala Leu Phe Ser Leu Gly Pro Pro Pro Leu 10 Ser Leu Lys Ser Ser Ser Ala Pro Arg Pro Tyr Ser Thr Leu Arg Asp 25 Cys Leu Glu His Phe Ala Glu Leu Phe Asp Leu Gly Phe Pro Asn Pro 40 Leu Ala Glu Arg Ile Ile Phe Glu Thr His Gln Ile His Phe Ala Asn 55 Cys Ser Leu Gly Gln Pro Thr Phe Ser Asp Pro Pro Glu Asp Val Leu 70 75 Leu Ala Met Ile Ile Ala Pro Ile Cys Leu Ile Pro Phe Leu Ile Thr 85 90 Leu Val Val Trp Arg Ser Lys Asp Ser Glu Ala Gln Ala 100 105

<210> 1193 <211> 257 <212>Amino acid <213> Homo sapiens

<400> 1193 Cys Glu Glu Arg Glu Gln Glu Lys Asp Asp Val Asp Val Ala Leu Leu 10 Pro Thr Ile Val Glu Lys Val Ile Leu Pro Lys Leu Thr Val Ile Ala 25 Glu Asn Met Trp Asp Pro Phe Ser Thr Thr Gln Thr Ser Arg Met Val 40 Gly Ile Thr Leu Lys Leu Ile Asn Gly Tyr Pro Ser Val Val Asn Ala 55 Glu Asn Lys Asn Thr Gln Val Tyr Leu Lys Ala Leu Leu Leu Arg Met 70 Arg Arg Thr Leu Asp Asp Asp Val Phe Met Pro Leu Tyr Pro Lys Asn 90 Val Leu Glu Asn Lys Asn Ser Gly Pro Tyr Leu Phe Phe Gln Arg Gln 100 105 Phe Trp Ser Ser Val Lys Leu Leu Gly Asn Phe Leu Gln Trp Tyr Gly 120 Ile Phe Ser Asn Lys Thr Leu Gln Glu Leu Ser Ile Asp Gly Leu Leu 135 140 Asn Arg Tyr Ile Leu Met Ala Phe Gln Asn Ser Glu Tyr Gly Asp Asp 150 155 Ser Ile Lys Lys Ala Gln Asn Val Ile Asn Cys Phe Pro Lys Gln Trp 165 170 Phe Met Asn Leu Lys Gly Glu Arg Thr Ile Ser Gln Leu Glu Asn Phe 180 185 Cys Arg Tyr Leu Val His Leu Ala Asp Thr Ile Tyr Arg Asn Ser Ile 195 200 205 Gly Cys Ser Asp Val Glu Lys Arg Asn Ala Arg Glu Asn Ile Lys Gln 215 220

Ile Val Lys Leu Leu Ala Ser Val Arg Ala Leu Asp His Ala Met Ser 225 230 235 240 Val Ala Ser Asp His Asn Val Lys Glu Phe Lys Ser Leu Ile Glu Gly 245 250 255 Lys 25 ...

<210> 1194 <211> 416 <212>Amino acid <213> Homo sapiens

<400> 1194 Thr Pro Phe Cys Phe Leu Cys Ser Leu Val Phe Arg Ser Arg Val Trp 10 Ala Glu Pro Cys Leu Ile Asp Ala Ala Lys Glu Glu Tyr Asn Gly Val Ile Glu Glu Phe Leu Ala Thr Gly Glu Lys Leu Phe Gly Pro Tyr Val 40 Trp Gly Arg Tyr Asp Leu Leu Phe Met Pro Pro Ser Phe Pro Phe Gly 55 Gly Met Glu Asn Pro Cys Leu Thr Phe Val Thr Pro Cys Leu Leu Ala 70 Gly Asp Arg Ser Leu Ala Asp Val Ile Ile His Glu Ile Ser His Ser Trp Phe Gly Asn Leu Val Thr Asn Ala Asn Trp Gly Glu Phe Trp Leu 100 105 Asn Glu Gly Phe Thr Met Tyr Ala Gln Arg Arg Ile Ser Thr Ile Leu 120 Phe Gly Ala Ala Tyr Thr Cys Leu Glu Ala Ala Thr Gly Arg Ala Leu 135 140 Leu Arg Gln His Met Asp Ile Thr Gly Glu Glu Asn Pro Leu Asn Lys 150 155 Leu Arg Val Lys Ile Glu Pro Gly Val Asp Pro Asp Asp Thr Tyr Asn 165 170 Glu Thr Pro Tyr Glu Lys Gly Phe Cys Phe Val Ser Tyr Leu Ala His 180 185 Leu Val Gly Asp Gln Asp Gln Phe Asp Ser Phe Leu Lys Ala Tyr Val 200 His Glu Phe Lys Phe Arg Ser Ile Leu Ala Asp Asp Phe Leu Asp Phe 215 220 Tyr Leu Glu Tyr Phe Pro Glu Leu Lys Lys Lys Arg Val Asp Ile Ile 230 235 Pro Gly Phe Glu Phe Asp Arg Trp Leu Asn Thr Pro Gly Trp Pro Pro 250 Tyr Leu Pro Asp Leu Ser Pro Gly Asp Ser Leu Met Lys Pro Ala Glu 265 270 Glu Leu Ala Gln Leu Trp Ala Ala Glu Glu Leu Asp Met Lys Ala Ile 280 Glu Ala Val Ala Ile Ser Pro Trp Lys Thr Tyr Gln Leu Val Tyr Phe 295 Leu Asp Lys Ile Leu Gln Lys Ser Pro Leu Pro Pro Gly Asn Val Lys 310 315 Lys Leu Gly Asp Thr Tyr Pro Ser Ile Ser Asn Ala Arg Asn Ala Glu 325 330 Leu Arg Leu Arg Trp Gly Gln Ile Val Leu Lys Asn Asp His Gln Glu 340 345 Asp Phe Trp Lys Val Lys Glu Phe Leu His Asn Gln Gly Lys Gln Lys 360

Tyr Thr Leu Pro Leu Tyr His Ala Met Met Gly Gly Ser Glu Val Ala 370 375 381 Ser Glu Val Ala 370 375 381 Ser Glu Val Ala 250 Glu Thr Phe Ala Ser Thr Ala Ser Gln Leu His 385 390 395 400 Ser Asn Val Val Asn Tyr Val Gln Gln Ile Val Ala Pro Lys Gly Ser 450 450 455 456

<210> 1195 <211> 295 <212>Amino acid <213> Homo sapiens

<400> 1195 Cys Ala Ser Gly Ser Ser Gly Trp Arg Pro Val Leu Trp Ala Gly Ala 10 Phe Thr Met Ala Ser Ala Glu Leu Asp Tyr Thr Ile Glu Ile Pro Asp 25 Gln Pro Cys Trp Ser Gln Lys Asn Ser Pro Ser Pro Gly Gly Lys Glu 40 Ala Glu Thr Arg Gln Pro Val Val Ile Leu Leu Gly Trp Gly Gly Cys 55 Lys Asp Lys Asn Leu Ala Lys Tyr Ser Ala Ile Tyr His Lys Arg Gly 70 75 Cys Ile Val Ile Arg Tyr Thr Ala Pro Trp His Met Val Phe Phe Ser 90 Glu Ser Leu Gly Ile Pro Ser Leu Arg Val Leu Ala Gln Lys Leu Leu 100 105 Glu Leu Leu Phe Asp Tyr Glu Ile Glu Lys Glu Pro Leu Leu Phe His 120 Val Phe Ser Asn Gly Gly Val Met Leu Tyr Arg Tyr Val Leu Glu Leu 135 Leu Gln Thr Arg Arg Phe Cys Arg Leu Arg Val Val Gly Thr Ile Phe 150 155 Asp Ser Ala Pro Gly Asp Ser Asn Leu Val Gly Ala Leu Arg Ala Leu 170 Ala Ala Ile Leu Glu Arg Arg Ala Ala Met Leu Arg Leu Leu Leu 185 Val Ala Phe Ala Leu Val Val Val Leu Phe His Val Leu Leu Ala Pro 200 Ile Thr Ala Leu Phe His Thr His Phe Tyr Asp Arg Leu Gln Asp Ala 215 Gly Ser Arg Trp Pro Glu Leu Tyr Leu Tyr Ser Arg Ala Asp Glu Val 230 235 Val Leu Ala Arg Asp Ile Glu Arg Met Val Glu Ala Arg Leu Ala Arg 250 Arg Val Leu Ala Arg Ser Val Asp Phe Val Ser Ser Ala His Val Ser 260 265 270 His Leu Arg Asp Tyr Pro Thr Tyr Tyr Thr Ser Leu Cys Val Asp Phe Met Arg Asn Trp Val Arg Cys 290

<210> 1196

<211> 97

<212>Amino acid

<213> Homo sapiens

<400> 1196 Pro Arg Val Arg Asp Arg Leu Pro Ser Thr Gly Val Arg Asp Arg Lys 10 Gly Asp Lys Pro Trp Lys Glu Ser Gly Gly Ser Val Glu Ala Pro Arg 25 Met Gly Phe Thr His Pro Pro Gly His Leu Ser Gly Cys Gln Ser Ser 40 Leu Ala Ser Gly Glu Thr Gly Thr Gly Ser Ala Asp Pro Pro Gly Gly 55 Pro Arg Pro Gly Leu Thr Arg Arg Ala Pro Val Lys Asp Thr Pro Gly 70 75 Arg Ala Pro Ala Ala Asp Ala Ala Pro Ala Gly Pro Ser Ser Cys Leu 85 Gly 97

<210> 1197 <211> 204 <212>Amino acid <213> Homo sapiens

<400> 1197 Gln Gly Arg Thr Ser Cys Ile Gly Leu Tyr Thr Tyr Gln Arg Arg Ile Cys Lys Tyr Arg Asp Gln Tyr Asn Trp Phe Phe Leu Ala Arg Pro Thr Thr Phe Ala Ile Ile Glu Asn Leu Lys Tyr Phe Leu Leu Lys Lys Asp Pro Ser Gln Pro Phe Tyr Leu Gly His Thr Ile Lys Ser Gly Asp Leu Glu Tyr Val Gly Met Glu Gly Gly Ile Val Leu Ser Val Glu Ser Met 70 Lys Arg Leu Asn Ser Leu Leu Asn Ile Pro Glu Lys Cys Pro Glu Gln Gly Gly Met Ile Trp Lys Ile Ser Glu Asp Lys Gln Leu Ala Val Cys 100 105 Leu Lys Tyr Ala Gly Val Phe Ala Glu Asn Ala Glu Asp Ala Asp Gly 120 Lys Asp Val Phe Asn Thr Lys Ser Val Gly Leu Ser Ile Lys Glu Ala 135 140 Met Thr Tyr His Pro Asn Gln Val Val Glu Gly Cys Cys Ser Asp Met 150 155 Ala Val Thr Phe Asn Gly Leu Thr Pro Asn Gln Met His Val Met Met 165 170 Tyr Gly Val Tyr Arg Leu Arg Ala Phe Gly His Ile Phe Asn Asp Ala 180 185 Leu Val Phe Leu Pro Pro Asn Gly Ser Asp Asn Asp 200

<210> 1198

<211> 238

<212>Amino acid <213> Homo sapiens

<400> 1198 His Glu Gly Lys Pro Thr Arg Gly Arg Gly Arg Gly Gly Ser Leu Ser Thr Arg Gly Arg Gly Ser Glu Val Pro Asp Ser Ala His Leu Ala Pro Thr Pro Leu Phe Ser Glu Ser Gly Cys Cys Gly Leu Arg Ser Arg Phe 4.0 Leu Thr Asp Cys Lys Met Glu Glu Gly Gly Asn Leu Gly Gly Leu Ile 55 Lys Met Val His Leu Leu Val Leu Ser Gly Ala Trp Gly Met Gln Met 70 75 Trp Val Thr Phe Val Ser Gly Phe Leu Leu Phe Arg Ser Leu Pro Arg 90 His Thr Phe Gly Leu Val Gln Ser Lys Leu Phe Pro Phe Tyr Phe His 100 105 Ile Ser Met Gly Cys Ala Phe Ile Asn Leu Cys Ile Leu Ala Ser Gln 120 His Ala Trp Ala Gln Leu Thr Phe Trp Glu Ala Ser Gln Leu Tyr Leu 135 140 Leu Phe Leu Ser Leu Thr Leu Ala Thr Val Asn Ala Arg Trp Leu Glu 150 1.55 Pro Arg Thr Thr Ala Ala Met Trp Ala Leu Gln Thr Val Glu Lys Glu 165 170 Arg Gly Leu Gly Gly Glu Val Pro Gly Ser His Gln Gly Pro Asp Pro 185 180 Tyr Arg Gln Leu Arg Glu Lys Asp Pro Lys Tyr Ser Ala Leu Arg Gln 200 Asn Phe Phe Arg Tyr His Gly Leu Ser Ser Leu Cys Asn Leu Gly Cys 215 Val Leu Ser Asn Gly Leu Cys Leu Ala Ala Leu Pro Trp Lys

<210> 1199 <211> 100 <212>Amino acid <213> Homo sapiens

100

4400 1199
Lys Gln Leu Asp Lys Gln Leu Arg Ala Asp Pro Ser Gly Ser Leu Pro 1 10 15
Pro Leu Fro Pro Ser Pro Pro Pro Pro Leu Glu Ala Gly Gly Arg Pro 20 25 30
Pro Glu Val Pro Pro Arg Gly Pro Ser Ala Val Pro Ser Phe Pro Ser Ala Ser Gly Asp Trp Gly Gly Pro Val Glu Ala Gly Glu Gly Gly Gln 50 55 60 55 60
Gln Gly Arg Gly Arg Ala Arg Ala Arg Pro Cys Ser Leu Pro Pro Leu 65 70 70 75 80
Leu Pro Pro Ser Pro Val Cys Arg Leu Ser Gly Ser Arg Ala Pro Leu 85
Gly Cys Asp Gly

<210> 1200 <211> 194 <212>Amino acid <213> Homo sapiens

<400> 1200 Arg Asn Gln Leu Ser Ser Gln Lys Ser Val Pro Trp Val Pro Ile Leu 10 Lys Ser Leu Pro Leu Trp Ala Ile Val Val Ala His Phe Ser Tyr Asn Trp Thr Phe Tyr Thr Leu Leu Thr Leu Leu Pro Thr Tyr Met Lys Glu 40 Ile Leu Arg Phe Asn Val Gln Glu Asn Gly Phe Leu Ser Ser Leu Pro 55 Tyr Leu Gly Ser Trp Leu Cys Met Ile Leu Ser Gly Gln Ala Ala Asp 70 75 Asn Leu Arg Ala Lys Trp Asn Phe Ser Thr Leu Cys Val Arg Arg Ile 90 Phe Ser Leu Ile Gly Met Ile Gly Pro Ala Val Phe Leu Val Ala Ala 100 105 Gly Phe Ile Gly Cys Asp Tyr Ser Leu Ala Val Ala Phe Leu Thr Ile 120 Ser Thr Thr Leu Gly Gly Phe Cys Ser Ser Gly Phe Ser Ile Asn His 135 Leu Asp Ile Ala Pro Ser Tyr Ala Gly Ile Leu Leu Gly Ile Thr Asn 150 155 Thr Phe Ala Thr Ile Pro Gly Met Val Gly Pro Val Ile Ala Lys Ser 165 170 Leu Thr Pro Asp Met Gly Ile Ser Leu His Arg Pro Gly Trp Ser Ala 185 Val Ala 194

<210> 1201 <211> 119 <212>Amino acid <213> Homo sapiens

<400> 1201 Gly Pro Ser Gly Thr Thr His Ala Ser Ala His Ser Gly His Pro Gly 10 Ser Pro Arg Gly Ser Leu Ser Arg His Pro Ser Ser Gln Leu Ala Gly 25 Pro Gly Val Glu Gly Glu Gly Thr Gln Lys Pro Arg Asp Tyr Ile 40 Ile Leu Ala Ile Leu Ser Cys Phe Cys Pro Met Trp Pro Val Asn Ile 55 Val Ala Phe Ala Tyr Ala Val Met Ser Arg Asn Ser Leu Gln Gln Gly 70 75 Asp Val Asp Gly Ala Gln Arg Leu Gly Arg Val Ala Lys Leu Leu Ser 90 Ile Val Ala Leu Val Gly Gly Val Leu Ile Ile Ile Ala Ser Cys Val 100 105 Ile Asn Leu Gly Val Tyr Lys 115 119

<210> 1202 <211> 66 <212>Amino acid <213> Homo sapiens

<210> 1203 <211> 509 <212>Amino acid <213> Homo sapiens

<400> 1203 Asp Asp Val Pro Pro Pro Ala Pro Asp Leu Tyr Asp Val Pro Pro Gly Leu Arg Arg Pro Gly Pro Gly Thr Leu Tyr Asp Val Pro Arg Glu Arg Val Leu Pro Pro Glu Val Ala Asp Gly Gly Val Val Asp Ser Gly Val Tyr Ala Val Pro Pro Pro Ala Glu Arg Glu Ala Pro Ala Glu Gly Lys Arg Leu Ser Ala Ser Ser Thr Gly Ser Thr Arg Ser Ser Gln Ser Ala 75 Ser Ser Leu Glu Val Ala Gly Pro Gly Arg Glu Pro Leu Glu Leu Glu 90 Val Ala Val Glu Ala Leu Ala Arg Leu Gln Gln Gly Val Ser Ala Thr 105 Val Ala His Leu Leu Asp Leu Ala Gly Ser Ala Gly Ala Thr Gly Ser 120 Trp Arg Ser Pro Ser Glu Pro Gln Glu Pro Leu Val Gln Asp Leu Gln 135 Ala Ala Val Ala Ala Val Gln Ser Ala Val His Glu Leu Leu Glu Phe 150 155 Ala Arg Ser Ala Val Gly Asn Ala Ala His Thr Ser Asp Arg Ala Leu 165 170 His Ala Lys Leu Ser Arg Gln Leu Gln Lys Met Glu Asp Val His Gln 180 185 Thr Leu Val Ala His Gly Gln Ala Leu Asp Ala Gly Arg Gly Gly Ser 200 Gly Ala Thr Leu Glu Asp Leu Asp Arg Leu Val Ala Cys Ser Arg Ala 215 220 Val Pro Glu Asp Ala Lys Gln Leu Ala Ser Phe Leu His Gly Asn Ala 230 235

. Ser Leu Leu Phe Arg Arg Thr Lys Ala Thr Ala Pro Gly Pro Glu Gly 250 Gly Gly Thr Leu His Pro Asn Pro Thr Asp Lys Thr Ser Ser Ile Gln . 265 Ser Arg Pro Leu Pro Ser Pro Pro Lys Phe Thr Ser Gln Asp Ser Pro 280 Asp Gly Gln Tyr Glu Asn Ser Glu Gly Gly Trp Met Glu Asp Tyr Asp 295 300 Tyr Val His Leu Gln Gly Lys Glu Glu Phe Glu Lys Thr Gln Lys Glu 310 315 Leu Leu Glu Lys Gly Ser Ile Thr Arg Gln Gly Lys Ser Gln Leu Glu 325 330 Leu Gln Gln Leu Lys Gln Phe Glu Arg Leu Glu Gln Glu Val Ser Arg 340 345 Pro Ile Asp His Asp Leu Ala Asn Trp Thr Pro Ala Gln Pro Leu Ala 355 360 Pro Gly Arg Thr Gly Gly Leu Gly Pro Ser Asp Arg Gln Leu Leu Leu 375 380 Phe Tyr Leu Glu Gln Cys Glu Ala Asn Leu Thr Thr Leu Thr Asn Ala 390 395 Val Asp Ala Phe Phe Thr Ala Val Ala Thr Asn Gln Pro Pro Lys Ile 405 410 Phe Val Ala His Ser Lys Phe Val Ile Leu Ser Ala His Lys Leu Val 425 430 Phe Ile Gly Asp Thr Leu Ser Arg Gln Ala Lys Ala Ala Asp Val Arg 440 Ser Gln Val Thr His Tyr Ser Asn Leu Leu Cys Asp Leu Leu Arg Gly 455 460 Ile Val Ala Thr Thr Lys Ala Ala Ala Leu Gln Tyr Pro Ser Pro Ser 470 475 Ala Ala Gln Asp Met Val Glu Arg Val Lys Glu Leu Gly His Ser Thr 485 490 Gln Gln Phe Arg Arg Val Leu Gly Gln Leu Ala Ala Ala 505

<210> 1204 <211> 453 <212>Amino acid <213> Homo sapiens <220>

<221> misc_feature <222> (1)...(453)

<223> X = any amino acid or stop code

<400> 1204 Glu Met Glu Glu Pro Gln Lys Ser Tyr Val Asn Thr Met Asp Leu Glu 10 Arg Asp Glu Pro Leu Lys Ser Thr Gly Pro Gln Ile Ser Val Ser Glu 20 25 Phe Ser Cys His Cys Cys Tyr Asp Ile Leu Val Asn Pro Thr Thr Leu 35 40 Asn Cys Gly His Ser Phe Cys Arg His Cys Leu Ala Leu Trp Trp Ala 55 60 Ser Ser Lys Lys Thr Glu Cys Pro Glu Cys Arg Glu Lys Trp Glu Gly 70 75 Phe Pro Lys Val Ser Ile Leu Leu Arg Asp Ala Ile Glu Lys Leu Phe 8.5 90 Pro Asp Ala Ile Arg Leu Arg Phe Glu Asp Ile Gln Gln Asn Asp

1.00 105 Ile Val Gln Ser Leu Ala Ala Phe Gln Lys Tyr Gly Asn Asp Gln Ile 120 125 Pro Leu Ala Pro Asn Thr Gly Arg Ala Asn Gln Gln Met Gly Gly Gly 135 140 Phe Phe Ser Gly Val Leu Thr Ala Leu Thr Gly Val Ala Val Val Leu 150 155 160 Leu Val Tyr His Trp Ser Ser Arg Glu Ser Glu His Asp Leu Leu Val 165 170 175 His Lys Ala Val Ala Lys Trp Thr Ala Glu Glu Val Val Leu Trp Leu 185 Glu Gln Leu Gly Pro Trp Ala Ser Leu Tyr Arg Glu Arg Phe Leu Ser 200 205 Glu Arg Val Asn Gly Arg Leu Leu Leu Thr Leu Thr Glu Glu Glu Phe 215 220 Ser Lys Thr Pro Tyr Thr Ile Glu Asn Ser Ser His Arg Arg Ala Ile 230 235 Leu Met Glu Leu Glu Arg Val Lys Ala Leu Gly Val Lys Pro Pro Gln 250 Asn Leu Trp Glu Tyr Lys Ala Val Asn Pro Gly Arg Ser Leu Phe Leu 265 Leu Tyr Ala Leu Lys Ser Ser Pro Arg Leu Ser Leu Leu Tyr Leu Tyr 280 285 Leu Phe Asp Tyr Thr Asp Thr Phe Leu Pro Phe Ile His Thr Ile Cys 295 300 Pro Leu Gln Glu Asp Ser Ser Gly Glu Asp Ile Val Thr Lys Leu Leu 310 315 Asp Leu Lys Glu Pro Thr Trp Lys Gln Trp Arg Glu Phe Leu Val Lys 325 330 Tyr Ser Phe Leu Pro Tyr Gln Leu Ile Ala Glu Phe Ala Trp Asp Trp 340 345 350 Leu Glu Val His Tyr Trp Thr Ser Arg Phe Leu Ile Ile Asn Ala Met 360 365 Leu Leu Ser Val Leu Glu Leu Phe Ser Phe Trp Arg Ile Trp Ser Arg 375 380 Ser Glu Leu Lys Xaa Val Gly Phe Arg Phe Leu Arg Leu Gly Val Ala 390 395 Ala Leu Gly Ser Val Glu Val Ala Gly Leu Arg Gly Val Val Lys Gly 405 410 Glu Arg Pro Leu Leu Tyr Gly His Gly Ala Gly Ala Arg Phe Pro His 420 425 Ser Val Leu Leu Pro Val Ala Lys Pro Leu Pro Leu Pro Leu Leu 435 440 Pro Arg Gly Leu Cys

450 453

<210> 1205 <211> 80

<212>Amino acid <213> Homo sapiens

<400> 1205

50 60 Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser Glu Ser 65 70 75 80

<210> 1206 <211> 205 <212>Amino acid <213> Homo sapiens

<400> 1206 Leu Tyr Tyr Ser Gln Asp Glu Glu Ser Lys Ile Met Ile Ser Asp Phe 2.0 Gly Leu Ser Lys Met Glu Gly Lys Gly Asp Val Met Ser Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu Ala Gln Lys Pro Tyr 40 Ser Lys Ala Val Asp Cys Trp Ser Ile Gly Val Ile Ala Tyr Ile Leu 55 Leu Cys Gly Tyr Pro Pro Phe Tyr Asp Glu Asn Asp Ser Lys Leu Phe 70 75 Glu Gln Ile Leu Lys Ala Glu Tyr Glu Phe Asp Ser Pro Tyr Trp Asp 90 Asp Ile Ser Asp Ser Ala Lys Asp Phe Ile Arg Asn Leu Met Glu Lys 105 Asp Pro Asn Lys Arg Tyr Thr Cys Glu Gln Ala Ala Arg His Pro Trp 120 Ile Ala Gly Asp Thr Ala Leu Asn Lys Asn Ile His Glu Ser Val Ser 135 140 Ala Gln Ile Arg Lys Asn Phe Ala Lys Ser Lys Trp Arg Gln Ala Phe 150 Asn Ala Thr Ala Val Val Arg His Met Arg Lys Leu His Leu Gly Ser 165 170 Ser Leu Asp Ser Ser Asn Ala Ser Val Ser Ser Ser Leu Ser Leu Ala 180 185 Ser Gln Lys Asp Cys Ala Ser Gly Thr Phe His Ala Leu 200

<210> 1207 <211> 117 <212>Amino acid

<213> Homo sapiens

 $\begin{array}{c} 4400 \times 1207 \\ \text{Arg Thr Arg Gly Gly Ala Val Ser Phe Glu Asp Phe Ile Lys Gly Leu} \\ 1 \\ \text{Ser Ile Leu Leu Arg Gly Thr Val Gln Glu Lys Leu Asn Trp Ala Phe} \\ 20 \\ \text{25} \\ \text{Asn Leu Tyr Asp Ile Asn Lys Asp Gly Tyr Ile Thr Lys Glu Glu Met} \\ 35 \\ \text{40} \\ \text{Leu Asp Ile Met Lys Ala Ile Tyr Asp Met Met Gly Lys Cys Thr Tyr} \\ 50 \\ \text{50} \\ \text{Fo} \\ \text{Pro Val Leu Lys Glu Asp Ala Pro Arg Gln His Val Glu Thr Phe Phe} \\ \end{array}$

65 70 75 80
Gln Lys Met Asp Lys Asn Lys Asp Gly Val Val Thr Ile Asp Glu Phe
95
Ile Glu Ser Cys Gln Lys Asp Glu Asn Ile Met Arg Ser Met Gln Leu
100 105
Phe Glu Asn Val Ile
115 117

<210> 1208 <211> 337 <212>Amino acid <213> Homo sapiens

<400> 1208 Pro Arg Ser Pro Glu His His Thr Pro Ala Trp His Glu Gly Arg Ser 10 Leu Gly Pro Ile Met Ala Ser Met Ala Asp Arg Asn Met Lys Leu Phe Ser Gly Arg Val Val Pro Ala Gln Gly Glu Glu Thr Phe Glu Asn Trp 35 Leu Thr Gln Val Asn Gly Val Leu Pro Asp Trp Asn Met Ser Glu Glu 55 Glu Lys Leu Lys Arg Leu Met Lys Thr Leu Arg Gly Pro Ala Arg Glu 70 Val Met Arg Val Leu Gln Ala Thr Asn Pro Asn Leu Ser Val Ala Asp 90 Phe Leu Arg Ala Met Lys Leu Val Phe Gly Glu Ser Glu Ser Ser Val 105 Thr Ala His Gly Lys Phe Phe Asn Thr Leu Gln Ala Gln Gly Glu Lys 120 125 Ala Ser Leu Tyr Val Ile Arg Leu Glu Val Gln Leu Gln Asn Ala Ile 135 140 Gln Ala Gly Ile Ile Ala Glu Lys Asp Ala Asn Arg Thr Arg Leu Gln 155 Gln Leu Leu Gly Gly Glu Leu Ser Arg Asp Leu Arg Leu Arg Leu 170 Lys Asp Phe Leu Arg Met Tyr Ala Asn Glu Gln Glu Arg Leu Pro Asn 185 Phe Leu Glu Leu Ile Lys Met Val Arg Glu Glu Glu Asp Trp Asp Asp 200 Ala Phe Ile Lys Arg Lys Arg Pro Lys Arg Ser Glu Ser Met Val Glu 215 Arg Ala Val Ser Pro Val Ala Phe Gln Gly Ser Pro Pro Ile Val Ile 230 235 Gly Ser Ala Asp Cys Asn Val Ile Glu Ile Asp Asp Thr Leu Asp Asp 245 250 Ser Asp Glu Asp Val Ile Leu Val Glu Ser Gln Asp Pro Pro Leu Pro 265 Ser Trp Gly Ala Pro Pro Leu Arg Asp Arg Ala Arg Pro Gln Asp Glu 280 Val Leu Val Ile Asp Ser Pro His Asn Ser Arg Ala Gln Phe Pro Ser 295 300 , Thr Ser Gly Gly Ser Gly Tyr Lys Asn Asn Gly Pro Gly Glu Met Arg 310 315 Arg Ala Arg Lys Arg Lys His Thr Ile Arg Cys Ser Tyr Cys Gly Glu 330 Glu

<210> 1209 <211> 64 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} < <00 > \ 1209 \\ \text{Ser Val Ala Cys Thr Val Pro Leu Arg Ser Met Ser Asp Pro Asp Gln} \\ 1 & 1 & 5 & 10 & 15 \\ \text{Asp Pro Asp Lys Glu Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His Ser Asp Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His Arg Ser Gln Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr 50 & 60 & 60 & 60 & 60 & 60 \\ \end{array}$

<210> 1210 <211> 316 <212>Amino acid <213> Homo sapiens

<400> 1210 Tyr Ser Ala Val Glu Phe Ala Glu Arg Gly Ser Gly Gly Ser Ser Gly 5 10 Asp Glu Leu Arg Glu Asp Asp Glu Pro Val Lys Lys Arg Gly Arg Lys 25 Gly Arg Gly Arg Gly Pro Pro Ser Ser Ser Asp Ser Glu Pro Glu Ala 35 40 Glu Leu Glu Arg Glu Ala Lys Lys Ser Ala Lys Lys Pro Gln Ser Ser Ser Thr Glu Pro Ala Arg Lys Pro Gly Gln Lys Glu Lys Arg Val Arg Pro Glu Glu Lys Gln Gln Ala Lys Pro Val Lys Val Glu Arg Thr Arg 90 Lys Arg Ser Glu Gly Phe Ser Met Asp Arg Lys Val Glu Lys Lys Lys 105 Glu Pro Ser Val Glu Glu Lys Leu Gln Lys Leu His Ser Glu Ile Lys . 120 Phe Ala Leu Lys Val Asp Ser Pro Asp Val Lys Arg Cys Leu Asn Ala 135 Leu Glu Glu Leu Gly Thr Leu Gln Val Thr Ser Gln Ile Leu Gln Lys 150 155 Asn Thr Asp Val Val Ala Thr Leu Lys Lys Ile Arg Arg Tyr Lys Ala 165 170 Asn Lys Asp Val Met Glu Lys Ala Ala Glu Val Tyr Thr Arg Leu Lys 185 Ser Arg Val Leu Gly Pro Lys Ile Glu Ala Val Gln Lys Val Asn Lys 195 200 205 Ala Gly Met Glu Lys Glu Lys Ala Glu Glu Lys Leu Ala Gly Glu Glu 215 220 Leu Ala Gly Glu Glu Ala Pro Gln Glu Lys Ala Glu Asp Lys Pro Ser 230 235 Thr Asp Leu Ser Ala Pro Val Asn Gly Glu Ala Thr Ser Gln Lys Gly

Glu Ser Ala Glu Asp Lys Glu His Glu Glu Gly Arg Asp ser Glu Glu
260
265
265
267
275
287
288
289
280
289
280
295
290
295
290
295
290
296
297
298
298
299
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
298
290
290
290
291
290
291
290
300
310
315
316

<210> 1211 <211> 767 <212>Amino acid <213> Homo sapiens

<400> 1211 Leu Ala Glu Leu Ser Ser Leu Ser Val Leu Arg Leu Ser His Asn Ser 5 10 Ile Ser His Ile Ala Glu Gly Ala Phe Lys Gly Leu Arg Ser Leu Arg 25 Val Leu Asp Leu Asp His Asn Glu Ile Ser Gly Thr Ile Glu Asp Thr 40 35 Ser Gly Ala Phe Ser Gly Leu Asp Ser Leu Ser Lys Leu Thr Leu Phe 55 Gly Asn Lys Ile Lys Ser Val Ala Lys Arg Ala Phe Ser Gly Leu Glu 70 Gly Leu Glu His Leu Asn Leu Gly Gly Asn Ala Ile Arg Ser Val Gln 85 90 Phe Asp Ala Phe Val Lys Met Lys Asn Leu Lys Glu Leu His Ile Ser 105 Ser Asp Ser Phe Leu Cys Asp Cys Gln Leu Lys Trp Leu Pro Pro Trp 120 125 Leu Ile Gly Arg Met Leu Gln Ala Phe Val Thr Ala Thr Cys Ala His 135 140 Pro Glu Ser Leu Lys Gly Gln Ser Ile Phe Ser Val Pro Pro Glu Ser 150 155 Phe Val Cys Asp Asp Phe Leu Lys Pro Gln Ile Ile Thr Gln Pro Glu 170 Thr Thr Met Ala Met Val Gly Lys Asp Ile Arg Phe Thr Cys Ser Ala 185 Ala Ser Ser Ser Ser Pro Met Thr Phe Ala Trp Lys Lys Asp Asn 200 Glu Val Leu Thr Asn Ala Asp Met Glu Asn Phe Val His Val His Ala 215 220 Gln Asp Gly Glu Val Met Glu Tyr Thr Thr Ile Leu His Leu Arg Gln 230 235 Val Thr Phe Gly His Glu Gly Arg Tyr Gln Cys Val Ile Thr Asn His 245 250 Phe Gly Ser Thr Tyr Ser His Lys Ala Arg Leu Thr Val Asn Val Leu 260 265 Pro Ser Phe Thr Lys Thr Pro His Asp Ile Thr Ile Arg Thr Thr Thr 280 Met Ala Arg Leu Glu Cys Ala Ala Thr Gly His Pro Asn Pro Gln Ile 295 300 Ala Trp Gln Lys Asp Gly Gly Thr Asp Phe Pro Ala Ala Arg Glu Arg 310 315 Arg Met His Val Met Pro Asp Asp Val Phe Phe Ile Thr Asp Val 330 Lys Ile Asp Asp Ala Gly Val Tyr Ser Cys Thr Ala Gln Asn Ser Ala

```
340
                            345
Gly Ser Ile Ser Ala Asn Ala Thr Leu Thr Val Leu Glu Thr Pro Ser
              360 365
Leu Val Val Pro Leu Glu Asp Arg Val Val Ser Val Gly Glu Thr Val
                    375 380
Ala Leu Gln Cys Lys Ala Thr Gly Asn Pro Pro Pro Arg Ile Thr Trp
               390 395 400
Phe Lys Gly Asp Arg Pro Leu Ser Leu Thr Glu Arg His His Leu Thr
              405 410
Pro Asp Asn Gln Leu Leu Val Val Gln Asn Val Val Ala Glu Asp Ala
         420 425
Gly Arg Tyr Thr Cys Glu Met Ser Asn Thr Leu Gly Thr Glu Arg Ala
           440
      435
His Ser Gln Leu Ser Val Leu Pro Ala Ala Gly Cys Arg Lys Asp Gly
                    455
Thr Thr Val Gly Ile Phe Thr Ile Ala Val Val Ser Ser Ile Val Leu
                 470
                                   475
Thr Ser Leu Val Trp Val Cys Ile Ile Tyr Gln Thr Arg Lys Lys Ser
                               490
Glu Glu Tyr Ser Val Thr Asn Thr Asp Glu Thr Val Val Pro Pro Asp
                            505
Val Pro Ser Tyr Leu Ser Ser Gln Gly Thr Leu Ser Asp Arg Gln Glu
                        520
Thr Val Val Arg Thr Glu Gly Gly Pro Gln Ala Asn Gly His Ile Glu
                     535
Ser Asn Gly Val Cys Pro Arg Asp Ala Ser His Phe Pro Glu Pro Asp
                 550
                                  555
Thr His Ser Val Ala Cys Arg Gln Pro Lys Leu Cys Ala Gly Ser Ala
                               570
Tyr His Lys Lys Pro Trp Lys Ala Met Glu Lys Ala Glu Gly Thr Pro
                            585
Gly Pro His Lys Met Glu His Gly Gly Arg Val Val Cys Ser Asp Cys
                        600
Asn Thr Glu Val Asp Cys Tyr Ser Arg Gly Gln Ala Phe His Pro Gln
                    615
Pro Val Ser Arg Asp Ser Ala Gln Pro Ser Ala Pro Asn Gly Pro Glu
                 630
                                  635
Pro Gly Gly Ser Asp Gln Glu His Ser Pro His His Gln Cys Ser Arg
             645
                               650
Thr Ala Ala Gly Ser Cys Pro Glu Cys Gln Gly Ser Leu Tyr Pro Ser
                           665
Asn His Asp Arg Met Leu Thr Ala Val Lys Lys Lys Pro Met Ala Ser
                        680
Leu Asp Gly Lys Gly Asp Ser Ser Trp Thr Leu Ala Arg Leu Tyr His
                    695
                                      700
Pro Asp Ser Thr Glu Leu Gln Pro Ala Ser Ser Leu Thr Ser Gly Ser
                 710
                                  715
Pro Glu Arg Ala Glu Ala Gln Tyr Leu Leu Val Ser Asn Gly His Leu
             725
                               730
Pro Lys Ala Cys Asp Ala Ser Pro Glu Ser Thr Pro Leu Thr Gly Gln
                           745 750
Leu Pro Gly Lys Gln Arg Val Pro Leu Leu Leu Ala Pro Lys Ser
      755
                       760
```

<210> 1212 <211> 821 <212>Amino acid

<213> Homo sapiens

<400> 1212 Ala Ala Ala Gly Ala Ala Arg Arg Val Ser Val Arg Cys Gly Arg Ser 1.0 Gly Pro Gly Pro Gly Arg Gly Ala Ala Gly Leu Ser Pro Ala Asp Ile 25 Ala Leu Ala Ser Glu Gln Gly Ala Ser Cys Ser Val Arg Ala Pro Glu 40 Arg Lys Leu Arg Met Lys Leu Leu Trp Gln Ala Lys Met Ser Ser Ile 55 Gln Asp Trp Gly Glu Glu Val Glu Glu Gly Ala Val Tyr His Val Thr 70 75 Leu Lys Arg Val Gln Ile Gln Gln Ala Ala Asn Lys Gly Ala Arg Trp 85 90 Leu Gly Val Glu Gly Asp Gln Leu Pro Pro Gly His Thr Val Ser Gln 100 105 Tyr Glu Thr Cys Lys Ile Arg Thr Ile Lys Ala Gly Thr Leu Glu Lys 120 Leu Val Glu Asn Leu Leu Thr Ala Phe Gly Asp Asn Asp Phe Thr Tyr 135 140 Ile Ser Ile Phe Leu Ser Thr Tyr Arg Gly Phe Ala Ser Thr Lys Glu 150 155 Val Leu Glu Leu Leu Asp Arg Tyr Gly Asn Leu Thr Ser Pro Asn 170 Cys Glu Glu Asp Gly Ser Gln Ser Ser Ser Glu Ser Lys Met Val Ile 185 Arg Asn Ala Ile Ala Ser Ile Leu Arg Ala Trp Leu Asp Gln Cys Ala 200 Glu Asp Fhe Arg Glu Pro Pro His Phe Pro Cys Leu Gln Lys Leu Leu 215 220 Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp Pro Glu Arg Arg Ala 230 235 Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu Val Glu Thr Asp Asn 245 250 Gly Leu Pro Asn Thr Ile Ser Phe Ser Leu Glu Glu Glu Glu Leu 265 Glu Gly Gly Glu Ser Ala Glu Phe Thr Cys Phe Ser Glu Asp Leu Val 280 Ala Glu Gln Leu Thr Tyr Met Asp Ala Gln Leu Phe Lys Lys Val Val 295 300 Pro His His Cys Leu Gly Cys Ile Trp Ser Arg Arg Asp Lys Lys Glu 310 315 Asn Lys His Leu Ala Pro Thr Ile Arg Ala Thr Ile Ser Gln Phe Asn 325 330 Thr Leu Thr Lys Cys Val Val Ser Thr Ile Leu Gly Gly Lys Glu Leu 340 345 Lys Thr Gln Gln Arg Ala Lys Ile Ile Glu Lys Trp Ile Asn Ile Ala 360 365 His Glu Cys Arg Leu Leu Lys Asn Phe Ser Ser Leu Arg Ala Ile Val 375 380 Ser Ala Leu Gln Ser Asn Ser Ile Tyr Arg Leu Lys Lys Thr Trp Ala 395 390 Ala Val Pro Arg Asp Arg Met Leu Met Phe Glu Glu Leu Ser Asp Ile 405 410 Phe Ser Asp His Asn Asn His Leu Thr Ser Arg Glu Leu Leu Met Lys 425 Glu Gly Thr Ser Lys Phe Ala Asn Leu Asp Ser Ser Val Lys Glu Asn 440 Gln Lys Arg Thr Gln Arg Arg Leu Gln Leu Gln Lys Asp Met Gly Val 455 460 Met Gln Gly Thr Val Pro Tyr Leu Gly Thr Phe Leu Thr Asp Leu Thr 470 475 Met Leu Asp Thr Ala Leu Gln Asp Tyr Ile Glu Gly Gly Leu Ile Asn 485 490 Phe Glu Lys Arg Arg Glu Phe Glu Val Ile Ala Gln Ile Lys Leu

500 505 Leu Gln Ser Ala Cys Asn Ser Tyr Cys Met Thr Pro Asp Gln Lys Phe 520 525 Ile Gln Trp Phe Gln Arg Gln Gln Leu Leu Thr Glu Glu Glu Ser Tyr 535 540 Ala Leu Ser Cys Glu Ile Glu Ala Ala Ala Asp Ala Ser Thr Thr Ser 550 555 560 Pro Lys Pro Trp Lys Ser Met Val Lys Arg Leu Asn Leu Leu Phe Leu 565 570 Gly Ala Asp Met Ile Thr Ser Pro Thr Pro Thr Lys Glu Gln Pro Lys 580 585 Ser Thr Ala Ser Gly Ser Ser Gly Glu Ser Met Asp Ser Val Ser Val 600 Ser Ser Cys Glu Ser Asn His Ser Glu Ala Glu Glu Gly Tyr Ile Thr 615 Pro Met Asp Thr Pro Asp Glu Pro Gln Lys Lys Leu Ser Glu Ser Ser 630 635 Ser Tyr Cys Ser Ser Ile His Ser Met Asp Thr Asn Phe Leu Gln Gly 650 Met Ser Ser Leu Ile Asn Pro Leu Ser Ser Pro Pro Ser Cys Asn Asn 665 Asn Pro Lys Ile His Lys Arg Ser Val Ser Val Thr Ser Ile Thr Ser 680 Thr Val Leu Pro Pro Val Tyr Asn Gln Gln Asn Glu Asp Thr Cys Ile 695 700 Ile Arg Ile Ser Val Glu Asp Asn Asn Gly Asn Met Tyr Lys Ser Ile 710 715 Met Leu Thr Ser Gln Asp Lys Thr Pro Ala Val Ile Gln Arg Ala Met 725 730 Leu Lys His Asn Leu Asp Ser Asp Pro Ala Glu Glu Tyr Glu Leu Val 745 Gln Val Ile Ser Glu Asp Lys Glu Leu Val Ile Pro Asp Ser Ala Asn 760 Val Phe Tyr Ala Met Asn Ser Gln Val Asn Phe Asp Phe Ile Leu Arg 775 Lys Lys Asn Ser Met Glu Glu Gln Val Lys Leu Arg Ser Arg'Thr Ser 790 795 Leu Thr Leu Pro Arg Thr Ala Lys Arg Gly Cys Trp Ser Asn Arg His 805 Ser Lys Ile Thr Leu 820 821

<210> 1213 <211> 289

<212>Amino acid <213> Homo sapiens

<400> 1213 Ala Arg Glu Lys Met Asp Ser Cys Ile Glu Ala Phe Gly Thr Thr Lys 5 10 Gln Lys Arg Ala Leu Asn Thr Arg Arg Met Asn Arg Val Gly Asn Glu 25 Ser Leu Asn Arg Ala Val Ala Lys Ala Ala Glu Thr Ile Ile Asp Thr 35 40 45 Lys Gly Val Thr Ala Leu Val Ser Asp Ala Ile His Asn Asp Leu Gln 55 60 Asp Asp Ser Leu Tyr Leu Pro Pro Cys Tyr Asp Asp Ala Ala Lys Pro 70

Glu Asp Val Tyr Lys Phe Glu Asp Leu Leu Ser Pro Ala Glu Tyr Glu

90 Ala Leu Gln Ser Pro Ser Glu Ala Phe Arg Asn Val Thr Ser Glu Glu 105 Ile Leu Lys Met Ile Glu Glu Asn Ser His Cys Thr Phe Val Ile Glu 120 Ala Leu Lys Ser Leu Pro Ser Asp Val Glu Ser Arg Asp Arg Gln Ala 135 140 Arg Cys Ile Trp Phe Leu Asp Thr Leu Ile Lys Phe Arg Ala His Arg 150 155 Val Val Lys Arg Lys Ser Ala Leu Gly Pro Gly Val Pro His Ile Ile 165 170 Asn Thr Lys Leu Leu Lys His Phe Thr Cys Leu Thr Tyr Asn Asn Gly 180 185 Arg Leu Arg Asn Leu Ile Ser Asp Ser Met Lys Ala Lys Ile Thr Ala 200 Tyr Val Ile Ile Leu Ala Leu His Ile His Asp Phe Gln Ile Asp Leu 215 Thr Val Leu Gln Arg Asp Leu Lys Leu Ser Glu Lys Arg Met Met Glu 230 235 Ile Ala Lys Ala Met Arg Leu Lys Ile Ser Lys Arg Arg Val Ser Val 250 Ala Ala Gly Ser Glu Glu Asp His Lys Leu Gly Thr Leu Ser Leu Pro 265 Leu Pro Pro Ala Gln Thr Ser Asp Arg Leu Ala Lys Arg Arg Lys Ile 280 Thr 289

<210> 1214 <211> 873 <212>Amino acid <213> Homo sapiens

<400> 1214 Leu Ser Leu Phe Gly Ser Arg Ala Leu Gly Arg Ser Gly Ala Arg Ala Met Ala Lys Ala Lys Lys Val Gly Ala Arg Arg Lys Ala Ser Gly Ala Pro Ala Gly Ala Arg Gly Gly Pro Ala Lys Ala Asn Ser Asn Pro Phe Glu Val Lys Val Asn Arg Gln Lys Phe Gln Ile Leu Gly Arg Lys Thr Arg His Asp Val Gly Leu Pro Gly Val Ser Arg Ala Arg Ala Leu Arg Lys Arg Thr Gln Thr Leu Leu Lys Glu Tyr Lys Glu Arg Asp Lys Ser 90 Asn Val Phe Arg Asp Lys Arg Phe Gly Glu Tyr Asn Ser Asn Met Ser 105 Pro Glu Glu Lys Met Met Lys Arg Phe Ala Leu Glu Gln Gln Arg His 120 125 His Glu Lys Lys Ser Ile Tyr Asn Leu Asn Glu Asp Glu Glu Leu Thr 135 140 His Tyr Gly Gln Ser Leu Ala Asp Ile Glu Lys His Asn Asp Ile Val 150 155 Asp Ser Asp Ser Asp Ala Glu Asp Arg Gly Thr Leu Ser Gly Glu Leu 165 170 Thr Ala Ala His Phe Gly Gly Gly Gly Leu Leu His Lys Lys Thr 180 185 Gln Gln Glu Gly Glu Glu Arg Glu Lys Pro Lys Ser Arg Lys Glu Leu

		195					200					205			
Ile	Glu	Glu	Leu	ıIle	Ala	Lvs			Gln	Glu	Lvs			Aro	Gln
	210					215					220				
Ala	Gln	Arg	Glu	Asp	Ala	Leu	Glu	Leu	Thr	Glu	Lys	Leu	Asp	Gln	Asp
225					230					235					240
Trp	Lys	Glu	Ile	Glr 245	Thr	Leu	Leu	Ser	His 250		Thr	Pro	Lys	Ser 255	
Asn	Arg	Asp	Lys 260		Glu	Lys	Pro	Lys 265	Pro		Ala	Тух	Asp 270	Met	
Val	Arg	Glu 275	Leu	Gly	Phe	Glu	Met 280	Lys		Gln	Pro	Ser 285			Met
Lys	Thr 290	Glu	Ala	Glu	Leu	Ala 295		Glu	Glu	Gln	Glu 300		Leu	Arg	Lys
Leu 305	Glu	Ala	Glu	Arg	Leu 310	Arg	Arg	Met	Leu	Gly 315			Glu	Asp	Glu 320
Asn	Val	Lys	Lys	Pro 325	Lys	His	Met	Ser	Ala 330	Asp	Asp	Leu	Asn	Asp 335	Gly
Phe	Val	Leu	Asp 340	Lys	Asp	Asp	Arg	Arg	Leu		Ser	Tyr	Lys	Asp	Gly
Lys	Met	Asn 355	Val		Glu	Asp	Val			Glu	Gln	Ser 365	Lys	Glu	Ala
Ser	Asp			Ser	Asn	Glu 375		Glu	Gly	Asp	Ser 380	Ser	Gly	Gly	Glu
Asp 385	Thr	Glu	Glu	Ser	Asp		Pro	Asp	Ser	His		Asp	Leu	Glu	
	Val	Glu	Ser	Glu 405	Glu	Glu	Asn	Glu			Ala	Lys	Glu		400 Arg
Gln	Thr	Pro	Gly		Gly	Ļeu	Ile	Ser	410 Gly	Lys	Glu	Arg		415 Gly	Lys
Ala	Thr	Arg 435		Glu	Leu	Pro	Tyr 440	425 Thr	Phe	Ala	Ala		430 Glu	Ser	Tyr
Glu	Glu 450		Arg	Ser	Leu	Leu 455		Gly	Arg	Ser		445 Glu	Glu	Gln	Leu
Leu 465		Val	Glu	Arg	Ile		Lys	Cys	Asn	His	460 Pro	Ser	Leu	Ala	
	Asn	Lys	Ala	Lys 485	Leu	Glu	Lys	Leu	Phe		Phe	Leu	Leu		480 Tyr
Val	Gly	Asp	Leu 500		Thr	Asp	Asp	Pro 505		Asp	Leu	Thr	Val 510	495 Ile	Asp
Lys	Leu	Val 515		His	Leu	Tyr	His 520		Cys	Gln	Met	Phe 525	Pro	Glu	Ser
Ala	Ser 530		Ala	Ile	Lys	Phe 535		Leu	Arg	Asp	Ala 540		His	Glu	Met
Glu 545	Glu	Met	Ile	Glu	Thr 550		Gly	Arg	Ala	Ala 555		Pro	Gly	Leu	Asp 560
Val	Leu	Ile	Tyr	Leu 565	Lys	Ile	Thr	Gly	Leu 570		Phe	Pro	Thr	Ser 575	
Phe	Trp	His	Pro 580	Val	Val	Thr	Pro	Ala 585		Val	Cys	Leu	Ser 590		Leu
Leu	Thr	Lys 595	Cys	Pro	Ile	Leu	Ser 600		Gln	Asp	Val	Val 605		Gly	Leu
Phe	Val 610	Cys	Cys	Leu	Phe	Leu 615	Glu	Tyr	Val	Ala	Leu 620		Gln	Arg	Phe
Ile 625	Pro	Glu	Leu	Ile	Asn 630		Leu	Leu	Gly	Ile 635		Tyr	Ile	Ala	Thr 640
Pro	Asn	Lys	Ala	Ser 645	Gln	Gly	Ser	Thr	Leu 650		His	Pro	Phe	Arg 655	Ala
Leu	Gly	Lys	Asn 660		Glu	Leu	Leu	Val 665		Ser	Ala	Arg	Glu 670	Asp	Val
Ala	Thr	Trp 675	Gln	Gln	Ser		Leu 680		Leu	Arg	Trp	Ala 685		Arg	Leu
	Ala 690					Glu 695	Ala				700	Leu			
Ala	Val	Gly	Leu	Ala	Leu	Leu	Lys	Arg	Cys	Val	Leu	Met	Tyr	Gly	Ser

710 715 Leu Pro Ser Phe His Ala Ile Met Gly Pro Leu Arg Ala Leu Leu Thr 725 730 735 Asp His Leu Ala Asp Cys Ser His Pro Gln Glu Leu Gln Glu Leu Cys 745 750 Gln Ser Thr Leu Thr Glu Met Glu Ser Gln Lys Gln Leu Cys Arg Pro 755 760 765 Leu Thr Cys Glu Lys Ser Lys Pro Val Pro Leu Lys Leu Phe Thr Pro 775 Arg Leu Val Lys Val Leu Glu Phe Gly Arg Lys Gln Gly Ser Ser Lys 790 795 Glu Glu Gln Glu Arg Lys Arg Leu Ile His Lys His Lys Arg Glu Phe 810 Lys Gly Ala Val Arg Glu Ile Arg Lys Asp Asn Gln Phe Leu Ala Arg 825 Met Gln Leu Ser Glu Ile Met Glu Arg Asp Ala Glu Arg Lys Arg Lys 840 Val Lys Gln Leu Phe Asn Ser Leu Ala Thr Gln Glu Gly Glu Trp Lys 855 Ala Leu Lys Arg Lys Lys Phe Lys Lys 870 873

<210> 1215 <211> 319 <212>Amino acid <213> Homo sapiens

<400> 1215 Leu Thr Lys Gln Glu Asp Cys Cys Gly Ser Ile Gly Thr Ala Trp Gly 10 Gln Ser Lys Cys His Lys Cys Pro Gln Leu Gln Tyr Thr Gly Val Gln 25 Lys Pro Gly Pro Val Arg Gly Glu Val Gly Ala Asp Cys Pro Gln Gly 40 Tyr Lys Arg Leu Asn Ser Thr His Cys Gln Asp Ile Asn Glu Cys Ala 55 Met Pro Gly Val Cys Arg His Gly Asp Cys Leu Asn Asn Pro Gly Ser 70 75 Tyr Arg Cys Val Cys Pro Pro Gly His Ser Leu Gly Pro Ser Arg Thr 90 Gln Cys Ile Ala Asp Lys Pro Glu Glu Lys Ser Leu Cys Phe Arg Leu 100 105 Val Ser Pro Glu His Gln Cys Gln His Pro Leu Thr Thr Arg Leu Thr 120 125 Arg Gln Leu Cys Cys Cys Ser Val Gly Lys Ala Trp Gly Ala Arg Cys 135 140 Gln Arg Cys Pro Thr Asp Gly Thr Ala Ala Phe Lys Glu Ile Cys Pro 150 155 Ala Gly Lys Gly Tyr His Ile Leu Thr Ser His Gln Thr Leu Thr Ile 165 170 Gln Gly Glu Ser Asp Phe Ser Leu Phe Leu His Pro Asp Gly Pro Pro 180 185 190 Lys Pro Gln Gln Leu Pro Glu Ser Pro Ser Gln Ala Pro Pro Pro Glu 200 Asp Thr Glu Glu Glu Arg Gly Val Thr Thr Asp Ser Pro Val Ser Glu 215 220 Glu Arg Ser Val Gln Gln Ser His Pro Thr Ala Thr Thr Thr Pro Ala 230 235 Arg Pro Tyr Pro Glu Leu Ile Ser Arg Pro Ser Pro Pro Thr Met Arg

<210> 1216 <211> 815 <212>Amino acid <213> Homo sapiens

<400> 1216 Met Ala Gly Gly His Cys Gly Ser Phe Pro Ala Ala Ala Ala Gly Ser 5 10 Gly Glu Ile Val Gln Leu Asn Val Gly Gly Thr Arg Phe Ser Thr Ser 20 2.5 Arg Gln Thr Leu Met Trp Ile Pro Asp Ser Phe Phe Ser Ser Leu Leu 40 Ser Gly Arg Ile Ser Thr Leu Arg Asp Glu Thr Gly Ala Ile Phe Ile 55 Asp Arg Asp Pro Ala Ala Phe Ala Pro Ile Leu Asn Phe Leu Arg Thr 70 75 Lys Glu Leu Asp Leu Arg Gly Val Ser Ile Asn Val Leu Arg His Glu 90 Ala Glu Phe Tyr Gly Ile Thr Pro Leu Val Arg Arg Leu Leu Leu Cys 105 Glu Glu Leu Glu Arg Ser Ser Cys Gly Ser Val Leu Phe His Gly Tyr 120 Leu Pro Pro Pro Gly Ile Pro Ser Arg Lys Ile Asn Asn Thr Val Arg 135 Ser Ala Asp Ser Arg Asn Gly Leu Asn Ser Thr Glu Gly Glu Ala Arg 150 155 Gly Asn Gly Thr Gln Pro Val Leu Ser Gly Thr Gly Glu Glu Thr Val 165 170 Arg Leu Gly Phe Pro Val Asp Pro Arg Lys Val Leu Ile Val Ala Gly 185 His His Asn Trp Ile Val Ala Ala Tyr Ala His Phe Ala Val Trp Tyr 200 Arg Ile Lys Glu Ser Ser Gly Trp Gln Gln Val Phe Thr Ser Pro Tyr 215 220 Leu Asp Trp Thr Ile Glu Arg Val Ala Leu Asn Ala Lys Val Val Gly 230 235 Gly Pro His Gly Asp Lys Asp Lys Met Val Ala Val Ala Ser Glu Ser 250 Ser Ile Ile Leu Trp Ser Val Gln Asp Gly Gly Ser Gly Ser Glu Ile 265 Gly Val Phe Ser Leu Gly Val Pro Val Asp Ala Leu Phe Phe Ile Gly 280 Asn Gln Leu Val Ala Thr Ser His Thr Gly Lys Val Gly Val Trp Asn 295 300 Ala Val Thr Gln His Trp Gln Val Gln Asp Val Val Pro Ile Thr Ser 310 315 Tyr Asp Thr Ala Gly Ser Phe Leu Leu Gly Cys Asn Asn Gly Ser 325 330 Ile Tyr Tyr Ile Asp Met Gln Lys Phe Pro Leu Arg Met Lys Asp Asn

			340					345					350		
Asp	Leu	Leu 355	Val	Thr	Glu	Leu	Tyr 360	His		Pro	Ser	Asn 365	Asp		Ile
Thr	Ala 370	Leu	ser	Val	Tyr	Leu 375	Thr	Pro	Lys	Thr	Ser	Val		Gly	Asn
Trp 385	Ile	Glu	Ile	Ala	Tyr 390	Gly	Thr	Ser	Ser	Gly 395	Ala		Arg	Val	Ile 400
Val	Gln	His	Pro	Glu 405	Thr	Va1	Gly	Ser	Gly 410	Pro		Leu	Phe	Gln 415	Thr
Phe	Thr	Val	His		Ser	Pro	Val	Thr 425	Lys		Met	Leu	Ser 430	Glu	
His	Leu	Val. 435	Ser	Val	Cys	Ala	Asp			His	Val	Arg	Thr		Thr
Val	Thr	Arg	Phe	Arg	Gly	Met 455		Ser	Thr	Gln	Pro			Thr	Pro
Leu 465	Ala	Ser	Phe	Lys	Ile 470		Ser	Leu	Glu	Glu 475		Glu	Ser	His	Gly 480
Ser	Tyr	Ser	Ser	Gly 485		Asp	Ile	Gly	Pro	Phe	Gly	Glu	Arg	Asp	Asp
Gln	Gln	Val	Phe 500	Ile	Gln	Lys	Val	Val 505		Ile	Thr	Asn	Lys 510	Leu	Phe
Val	Arg	Leu 515	Ser	Ser	Thr	Gly	Lys 520	Arg	Ile	Cys	Glu	Ile 525	Gln	Ala	Val
Asp	Cys 530	Thr	Thr	Ile	Ser	Ser 535	Phe	Thr	Gly	Arg	Glu 540	Cys	Glu	Gly	Ser
Ser 545	Arg	Met	Gly	Ser	Arg 550	Pro	Arg	Arg	Tyr	Leu 555	Phe	Thr	Gly	His	Thr 560
Asn	Gly	Ser	Ile	Gln 565	Met	Trp	Asp	Leu	Thr 570	Thr	Ala	Met	Asp	Met 575	Val
Asn	Lys	ser	Glu 580	Asp	Lys	Asp	Val	Gly 585	Gly	Pro	Thr	Glu	Glu 590	Glu	Leu
		595	Leu				600					605	-		
	610		Ser			615					620				-
625					630					635					Glu · 640
			Tyr	645					650					655	
			Arg 660					665					670		
		675	Leu				680					685			-
	690		Pro			695					700				
705			Glu		710					715				,	720
			Ser	725					730				_	735	
			Lys 740					745					750		
		755	Lys -				760					765			-
	770		Tyr			775					780				
785			Gly		790					795					Ser 800
PEO	arg	nlS	Lys	Lys 805	ser	Asp	ser	ser	Gly 810	Gln	Glu	Tyr	Ser	Leu 815	

<210> 1217 <211> 459

<212>Amino acid

<213> Homo sapiens

<400> 1217 Arg Arg Pro Thr Arg Pro Ile Leu Thr Asp Glu Leu Phe Lys Arg Thr 10 Ile Gln Leu Pro His Leu Lys Thr Leu Ile Leu Asn Gly Asn Lys Leu 25 Glu Thr Leu Ser Leu Val Ser Cys Phe Ala Asn Asn Thr Pro Leu Glu 40 His Leu Asp Leu Ser Gln Asn Leu Leu Gln His Lys Asn Asp Glu Asn 55 Cys Ser Trp Pro Glu Thr Val Val Asn Met Asn Leu Ser Tyr Asn Lys 70 Leu Ser Asp Ser Val Phe Arg Cys Leu Pro Lys Ser Ile Gln Ile Leu 90 Asp Leu Asn Asn Asn Gln Ile Gln Thr Val Pro Lys Glu Thr Ile His 105 Leu Met Ala Leu Arg Glu Leu Asn Ile Ala Phe Asn Phe Leu Thr Asp 120 Leu Pro Gly Cys Ser His Phe Ser Arg Leu Ser Val Leu Asn Ile Glu 135 140 Met Asn Phe Ile Leu Ser Pro Ser Leu Asp Phe Val Gln Ser Cys Gln 150 155 Glu Val Lys Thr Leu Asn Ala Gly Arg Asn Pro Phe Arg Cys Thr Cys 165 170 Glu Leu Lys Asn Phe Ile Gln Leu Glu Thr Tyr Ser Glu Val Met Met 185 Val Gly Trp Ser Asp Ser Tyr Thr Cys Glu Tyr Pro Leu Asn Leu Arg 200 Gly Thr Arg Leu Lys Asp Val His Leu His Glu Leu Ser Cys Asn Thr 215 Ala Leu Leu Ile Val Thr Ile Val Val Ile Met Leu Val Leu Gly Leu 230 235 Ala Val Ala Phe Cys Cys Leu His Phe Asp Leu Pro Trp Tyr Leu Arg 245 250 Met Leu Gly Gln Cys Thr Gln Thr Trp His Arg Val Arg Lys Thr Thr 260 265 Gln Glu Gln Leu Lys Arg Asn Val Arg Phe His Ala Phe Ile Ser Tyr 280 Ser Glu His Asp Ser Leu Trp Val Lys Asn Glu Leu Ile Pro Asn Leu 295 300 Glu Lys Glu Asp Gly Ser Ile Leu Ile Cys Leu Tyr Glu Ser Tyr Phe 310 315 Asp Pro Gly Lys Ser Ile Ser Glu Asn Ile Val Ser Phe Ile Glu Lys 330 Ser Tyr Lys Ser Ile Phe Val Leu Ser Pro Asn Phe Val Gln Asn Glu 345 Trp Cys His Tyr Glu Phe Tyr Phe Ala His His Asn Leu Phe His Glu 360 Asn Ser Asp His Ile Ile Leu Ile Leu Leu Glu Pro Ile Pro Phe Tyr 375 380 Cys Ile Pro Thr Arg Tyr His Lys Leu Lys Ala Leu Leu Glu Lys Lys 390 395 Ala Tyr Leu Glu Trp Pro Lys Asp Arg Arg Lys Cys Gly Leu Phe Trp 405 410 Ala Asn Leu Arg Ala Ala Ile Asn Val Asn Val Leu Ala Thr Arg Glu 425 Met Tyr Glu Leu Gln Thr Phe Thr Glu Leu Asn Glu Glu Ser Arg Gly 440 Ser Thr Ile Ser Leu Met Arg Thr Asp Cys Leu

450 455 459

<210> 1218

<211> 366 <212>Amino acid

<213> Homo sapiens

<400> 1218 Pro Thr Arg Pro Pro Thr Arg Pro Pro Thr Arg Pro Leu Leu Thr Pro 1 5 10 Ser Trp Thr Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu 20 25 Phe Trp Ser Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp 40 Cys Glu Ala Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser 65 70 75 His Lys Asn Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys 85 90 Thr His Leu Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn 105 110 Leu Ser Ile Thr Glu Ala Hìs Glu Ser Gly Pro Tyr Lys Cys Lys Ala 120 Gln Val Thr Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile 135 140 Val Asp Pro Val Thr Ser Pro Val Leu Asn Ile Met Val Ile Gln Thr 150 155 Glu Thr Asp Arg His Ile Thr Leu His Cys Leu Ser Val Asn Gly Ser 170 175 Leu Pro Ile Asn Tyr Thr Phe Phe Glu Asn His Val Ala Ile Ser Pro 185 Ala Ile Ser Lys Tyr Asp Arg Glu Pro Ala Glu Phe Asn Leu Thr Lys 200 Lys Asn Pro Gly Glu Glu Glu Tyr Arg Cys Glu Ala Lys Asn Arg 215 220 Leu Pro Asn Tyr Ala Thr Tyr Ser His Pro Val Thr Met Pro Ser Thr 230 235 Gly Gly Asp Ser Cys Pro Phe Cys Leu Lys Leu Leu Leu Pro Gly Leu 245 250 255 Leu Leu Leu Val Val Ile Ile Leu Ile Leu Ala Phe Trp Val Leu 260 265 270 Pro Lys Tyr Lys Thr Arg Lys Ala Met Arg Asn Asn Val Pro Arg Asp 275 280 285 Arg Gly Asp Thr Ala Met Glu Val Gly Ile Tyr Ala Asn Ile Leu Glu 295 300 Lys Gln Ala Lys Glu Glu Ser Val Pro Glu Val Gly Ser Arg Pro Cys 310 315 Val Ser Thr Ala Gln Asp Glu Ala Lys His Ser Gln Glu Leu Gln Tyr 325 330 Ala Thr Pro Val Phe Gln Glu Val Ala Pro Arg Glu Gln Glu Ala Cys 340 345 Asp Ser Tyr Lys Ser Gly Tyr Val Tyr Ser Glu Leu Asn Phe 360

<210> 1219 <211> 97

<212>Amino acid

<213> Homo sapiens

400> 1219
Phe Phe Phe Phe Glu Glu Arg Arg Thr Gly Ser His Ser Val Gly His 1
1 1 5 10
Pro Arg Met Glu Tyr Ser Gly Val Ser Met Ala His Cys Ser Leu Asn 20 25 30
Leu Leu Gly Ser Ser Asn Ser Pro Ser Ser Ala Ser Gln Asp Ala Arg 35 40 0 45
Thr Thr Gly Ala Cys Gln His Ala Gln Leu Ile Gly Phe Phe Phe Phe So 50 55 60
Val Glu Thr Ala Ser Pro Gln Val Thr His Ala Gly Leu Lys His Leu 65 70 75 80
Val Ser Arg Asn Pro Ser Ala Val Thr Ser Gln Ser Ala Arg Ile Lys 95
Thr

<210> 1220 <211> 242 <212>Amino acid <213> Homo sapiens

97

<400> 1220 Asn Arg Glu Gly Ala Arg Lys Ile Gln Asn Lys Trp Leu Arg Pro Ser 10 Pro Arg Ser His Arg Thr Pro Glu Ser Val Ser Pro Glu Arg Tyr Ser 20 Tyr Gly Thr Ser Ser Ser Ser Lys Arg Thr Glu Gly Ser Cys Arg Arg Arg Arg Gln Ser Ser Ser Ser Ala Asn Ser Gln Gln Gly Gln Trp Glu Thr Gly Ser Pro Pro Thr Lys Arg Gln Arg Arg Ser Arg Gly Arg Pro 70 Ser Gly Gly Ala Lys Arg Arg Arg Gly Ala Pro Ala Ala Pro Gln Gln Gln Ser Glu Pro Ala Arg Pro Ser Ser Glu Gly Lys Val Thr Cys 105 Asp Ile Arg Leu Arg Val Arg Ala Glu Tyr Cys Glu His Gly Pro Ala 125 120 Leu Glu Gln Gly Val Ala Ser Arg Arg Pro Gln Ala Leu Ala Arg Gln 135 140 Leu Asp Val Phe Gly Gln Ala Thr Ala Val Leu Arg Ser Arg Asp Leu 150 155 Gly Ser Val Val Cys Asp Ile Lys Phe Ser Glu Leu Ser Tyr Leu Asp 170 165 Ala Phe Trp Gly Asp Tyr Leu Ser Gly Ala Leu Leu Gln Ala Leu Arg 185 Gly Val Phe Leu Thr Glu Ala Leu Arg Glu Ala Val Gly Arg Glu Ala 200 Val Arg Leu Leu Val Ser Val Asp Glu Ala Asp Tyr Glu Ala Gly Arg 215 220 Arg Arg Leu Leu Met Glu Glu Glu Gly Gly Arg Arg Pro Thr Glu 230 235 Ala Ser

242

<210> 1221 <211> 440 <212>Amino acid <213> Homo sapiens

<400> 1221 Ala Pro Asn Thr Ala Glu Leu Arg Ile Cys Arg Val Asn Lys Asn Cys 10 Gly Ser Val Arg Gly Gly Asp Glu Ile Phe Leu Leu Cys Asp Lys Val 25 Gln Lys Asp Asp Ile Glu Val Arg Phe Val Leu Asn Asp Trp Glu Ala 40 Lys Gly Ile Phe Ser Gln Ala Asp Val His Arg Gln Val Ala Ile Val Phe Lys Thr Pro Pro Tyr Cys Lys Ala Ile Thr Glu Pro Val Thr Val 70 75 Lys Met Gln Leu Arg Arg Pro Ser Asp Gln Glu Val Ser Glu Ser Met Asp Phe Arg Tyr Leu Pro Asp Glu Lys Asp Thr Tyr Gly Asn Lys Ala 100 105 Lys Lys Gln Lys Thr Thr Leu Leu Phe Gln Lys Leu Cys Gln Asp His 120 Val Glu Thr Gly Phe Arg His Val Asp Gln Asp Gly Leu Glu Leu Leu 135 140 Thr Ser Gly Asp Pro Pro Thr Leu Ala Ser Gln Ser Ala Gly Ile Thr 150 155 Val Asn Phe Pro Glu Arg Pro Arg Pro Gly Leu Leu Gly Ser Ile Gly 165 170 Glu Gly Arg Tyr Phe Lys Lys Glu Pro Asn Leu Phe Ser His Asp Ala 185 Val Val Arg Glu Met Pro Thr Gly Val Ser Ser Gln Ala Glu Ser Tyr 200 Tyr Pro Ser Pro Gly Pro Ile Ser Ser Gly Leu Ser His His Ala Ser 215 220 Met Ala Pro Leu Pro Ser Ser Ser Trp Ser Ser Val Ala His Pro Thr 230 235 Pro Arg Ser Gly Asn Thr Asn Pro Leu Ser Ser Phe Ser Thr Arg Thr 245 250 Leu Pro Ser Asn Ser Gln Gly Ile Pro Pro Phe Leu Arg Ile Pro Val 265 Gly Asn Asp Leu Asn Ala Ser Asn Ala Cys Ile Tyr Asn Asn Ala Asp 280 Asp Ile Val Gly Met Glu Ala Ser Ser Met Pro Ser Ala Asp Leu Tyr 295 300 Gly Ile Ser Asp Pro Asn Met Leu Ser Asn Cys Ser Val Asn Met Met 310 315 Thr Thr Ser Ser Asp Ser Met Gly Glu Thr Asp Asn Pro Arg Leu Leu 325 330 Ser Met Asn Leu Glu Asn Pro Ser Cys Asn Ser Val Leu Asp Pro Arg 340 345 350 Asp Leu Arg Gln Leu His Gln Met Ser Ser Ser Met Ser Ala Gly 360 Ala Asn Ser Asn Thr Thr Val Phe Val Ser Gln Ser Asp Ala Phe Glu 375 380 Gly Ser Asp Phe Ser Cys Ala Asp Asn Ser Met Ile Asn Glu Ser Gly 390 395 Pro Ser Asn Ser Thr Asn Pro Asn Ser His Gly Phe Val Gln Asp Ser

405 410 415
Gln Tyr Ser Gly ILe Gly Ser Met Gln Asn Glu Gln Leu Ser Asp Ser
420 425 430
Phe Pro Tyr Glu Phe Phe Gln Val
45 440

<210> 1222 <211> 437 <212>Amino acid <213> Homo sapiens

<400> 1222 Arg Arg Leu Ser Leu Leu Asp Leu Gln Leu Gly Pro Leu Gly Arg Asp 5 10 Pro Pro Gln Glu Cys Ser Thr Phe Ser Pro Thr Asp Ser Gly Glu Glu 20 25 Pro Gly Gln Leu Ser Pro Gly Val Gln Phe Gln Arg Arg Gln Asn Gln Arg Arg Phe Ser Met Glu Asp Val Ser Lys Arg Leu Ser Leu Pro Met Asp Ile Arg Leu Pro Gln Glu Phe Leu Gln Lys Leu Gln Met Glu Ser 70 75 Pro Asp Leu Pro Lys Pro Leu Ser Arg Met Ser Arg Arg Ala Ser Leu 85 90 Ser Asp Ile Gly Phe Gly Lys Leu Glu Thr Tyr Val Lys Leu Asp Lys 105 Leu Gly Glu Gly Thr Tyr Ala Thr Val Phe Lys Gly Arg Ser Lys Leu 120 Thr Glu Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu Glu 135 140 Gly Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys Asn Leu 150 155 Lys His Ala Asn Ile Val Thr Leu His Asp Leu Ile His Thr Asp Arg 165 170 Ser Leu Thr Leu Val Phe Glu Tyr Leu Asp Ser Asp Leu Lys Gln Tyr 185 180 Leu Asp His Cys Gly Asn Leu Met Ser Met His Asn Val Lys Ile Phe 200 205 Met Phe Gln Leu Leu Arg Gly Leu Ala Tyr Cys His His Arg Lys Ile 215 Leu His Arg Asp Leu Lys Pro Gln Asn Leu Leu Ile Asn Glu Arg Gly 230 235 Glu Leu Lys Leu Ala Asp Phe Gly Leu Ala Arg Ala Lys Ser Val Pro 245 250 Thr Lys Thr Tyr Ser Asn Glu Val Val Thr Leu Trp Tyr Arg Pro Pro 265 Asp Val Leu Leu Gly Ser Thr Glu Tyr Ser Thr Pro Ile Asp Met Trp 280 285 Gly Val Gly Cys Ile His Tyr Glu Met Ala Thr Gly Arg Pro Leu Phe , 295 300 Pro Gly Ser Thr Val Lys Glu Glu Leu His Lys Ile Asn Arg Leu Leu 315 310 Gly Thr Pro Thr Glu Glu Thr Trp Pro Gly Val Thr Ala Phe Ser Glu 325 330 335 Phe Arg Thr Tyr Ser Phe Pro Cys Tyr Leu Pro Gln Pro Leu Ile Asn 340 345 His Ala Pro Arg Leu Asp Thr Asp Gly Ile His Leu Leu Ser Ser Leu 360 Leu Leu Tyr Glu Ser Lys Ser Arg Met Ser Ala Glu Ala Ala Leu Ser

<210> 1223 <211> 150 <212>Amino acid <213> Homo sapiens

<400> 1223 Cys Thr Pro His Gly Ser Ser Ser Trp Lys Ile Pro Leu Trp Pro 10 Arg His Met Ser Pro Leu His Ser Cys Leu Pro Val Gly Thr Ser Thr 25 Ser Ser Gly Pro Leu Ala Val Pro Arg Asp Cys Phe His Leu Cys Cys 40 Leu Trp Gly Gln Leu Leu Ile Ser Cys Pro Leu Ala Cys Gly Gln 55 Gly Cys Arg Val Ala Gly Gly Gln Gln His Val Pro Gly Gln Ala Leu 75 Gly Thr Leu Ser Pro Leu Val Ser Leu Leu Thr Trp Ala Gly Pro Ser 85 90 Leu Asp Trp Pro His Pro Gly Ser Leu Val Thr Pro Arg Cys Pro Ile 100 105 Leu Pro Ala Val Pro Val Leu Val Lys Gly Leu Gly Gly Trp Pro Pro 120 Thr Arg Pro Ser Arg Ala Ala Pro Val Ser Gly Pro Trp Asp Gln Leu 135 140 Pro Tyr Phe Pro Gly Leu 145 150

<210> 1224 <211> 276 <212>Amino acid <213> Homo sapiens

<400> 1224 Leu Ile Ser Pro Val Trp Gly Asn Ile Gln Arg Ser Arg Ser Val Pro 5 10 Leu Phe Pro Ser Gly Leu Val Leu Gly Gly Ile Trp Ala Arg Gly Pro 20 25 Leu Leu Ala Leu Leu Ala Ser Phe Asn Ile Ile Ser Val Leu Asn Ala 35 40 45 Glu Cys Tyr Leu Lys Gln Ile Leu His Pro Thr Ser His Phe Thr Val 55 Ser Glu Thr Pro Pro Leu Ser Gly Asn Asp Thr Asp Ser Leu Ser Cys 70 75 Asp Ser Gly Ser Ser Ala Thr Ser Thr Pro Cys Val Ser Arg Leu Val

85 Thr Gly His His Leu Trp Ala Ser Lys Asn Gly Arg His Val Leu Gly 105 Leu Ile Glu Asp Tyr Glu Ala Leu Leu Lys Gln Ile Ser Gln Gly Gln 120 125 Arg Leu Leu Ala Glu Met Asp Ile Gln Thr Gln Glu Ala Pro Ser Ser 135 140 Thr Ser Gln Glu Leu Gly Thr Lys Gly Pro His Pro Ala Pro Leu Ser 150 155 Lys Phe Val Ser Ser Val Ser Thr Ala Lys Leu Thr Leu Glu Glu Ala 170 Tyr Arg Arg Leu Lys Leu Leu Trp Arg Val Ser Leu Pro Glu Asp Gly 185 Gln Cys Pro Leu His Cys Glu Gln Ile Gly Glu Met Lys Ala Glu Val 195 200 205 Thr Lys Leu His Lys Lys Leu Phe Glu Gln Glu Lys Lys Leu Gln Asn 215 220 Thr Met Lys Leu Leu Gln Leu Ser Lys Arg Gln Glu Lys Val Ile Phe 230 235 Asp Gln Leu Val Val Thr His Lys Ile Leu Arg Lys Ala Arg Gly Asn 245 250 Leu Glu Leu Arg Pro Gly Gly Ala His Pro Gly Thr Cys Ser Pro Ser 265 Arg Pro Gly Ser 275 276

<210> 1225 <211> 270 <212>Amino acid <213> Homo sapiens

<400> 1225 Leu Gly Leu Phe Cys Ile Leu Pro Ile Asp Thr Leu Cys Ala Val Leu 10 Glu Arg Asp Thr Leu Ser Ile Arg Glu Ser Arg Leu Phe Gly Ala Val 25 Val Arg Trp Ala Glu Ala Glu Cys Gln Arg Gln Gln Leu Pro Val Thr 40 Phe Gly Asn Lys Gln Lys Val Leu Gly Lys Ala Leu Ser Leu Ile Arg 55 Phe Pro Leu Met Thr Ile Glu Glu Phe Ala Ala Gly Pro Ala Gln Ser 70 Gly Ile Leu Ser Asp Arg Glu Val Val Asn Leu Phe Leu His Phe Thr 90 Val Asn Pro Lys Pro Arg Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys 100 105 Leu Arg Gly Lys Glu Cys Cys Ile Asn Arg Phe Gln Gln Val Glu Ser 120 125 Arg Trp Gly Tyr Ser Gly Thr Ser Asp Arg Ile Arg Phe Thr Val Asn 135 140 Arg Arg Ile Ser Ile Val Gly Phe Gly Leu Tyr Gly Ser Ile His Gly 150 155 Pro Thr Asp Tyr Gln Val Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys 165 170 175 Gln Thr Leu Gly Gln Asn Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala 180 185 Asn Thr Phe Arg Val Met Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn 200 205 Val Cys Tyr Thr Ala Cys Ala Thr Leu Lys Gly Pro Asp Ser His Tyr

<210> 1226 <211> 273 <212>Amino acid <213> Homo sapiens

<400> 1226 Ser Val Trp Trp Asn Ser Glu Val Lys Asp Trp Met Gln Lys Lys Arg 1 5 10 Arg Gly Leu Arg Asn Ser Arg Ala Thr Ala Gly Asp Ile Ala His Tyr 20 25 Tyr Arg Asp Tyr Val Val Lys Lys Gly Leu Gly His Asn Phe Val Ser 35 40 Gly Ala Val Val Thr Ala Val Glu Trp Gly Thr Pro Asp Pro Ser Ser 55 Cys Gly Ala Gln Asp Ser Ser Pro Leu Phe Gln Val Ser Gly Phe Leu 65 70 75 Thr Arg Asn Gln Ala Gln Gln Pro Phe Ser Leu Trp Ala Arg Asn Val 85 90 Val Leu Ala Thr Gly Thr Phe Asp Ser Pro Ala Arg Leu Gly Ile Pro 105 Gly Glu Ala Leu Pro Phe Ile His His Glu Leu Ser Ala Leu Glu Ala 120 Ala Thr Arg Val Gly Ala Val Thr Pro Ala Ser Asp Pro Val Leu Ile 135 140 Ile Gly Ala Gly Leu Ser Ala Ala Asp Ala Val Leu Tyr Ala Arg His 150 155 Tyr Asn Ile Pro Val Ile His Ala Phe Arg Arg Ala Val Asp Asp Pro 170 Gly Leu Val Phe Asn Gln Leu Pro Lys Met Leu Tyr Pro Glu Tyr His 185 190 Lys Val His Gln Met Met Arg Glu Gln Ser Ile Leu Ser Pro Ser Pro 200 205 Tyr Glu Gly Tyr Arg Ser Leu Pro Arg His Gln Leu Leu Cys Phe Lys 215 Glu Asp Cys Gln Ala Val Phe Gln Asp Leu Glu Gly Val Glu Lys Val 230 235 Phe Gly Val Ser Leu Val Leu Val Leu Ile Gly Ser His Pro Asp Leu 245 250 Ser Phe Leu Pro Gly Ala Gly Leu Thr Leu Gln Trp Ile Leu Thr Ser 260 265 Arg 273

739

<210> 1227 <211> 86 <212>Amino acid

<210> 1228 <211> 249 <212>Amino acid <213> Homo sapiens

<400> 1228 Gln Leu Ile His Leu Ser His Gly Tyr Gln Ile His Trp Thr Asp Tyr 5 Tyr Asn Val Gly Thr Gly Arg Pro Glu Phe Gly Thr Arg Ala Ala His 2.0 25 Lys Ser Leu Ala Gly Ala Glu Leu Lys Thr Leu Lys Asp Phe Val Thr 40 Val Leu Ala Lys Leu Phe Pro Gly Arg Pro Pro Val Lys Lys Leu Leu 55 60 Glu Met Leu Gln Glu Trp Leu Ala Ser Leu Pro Leu Asp Arg Ile Pro 70 75 Tyr Asn Ala Val Leu Asp Leu Val Asn Asn Lys Met Arg Ile Ser Gly 85 90 Ile Phe Leu Thr Asn His Ile Lys Trp Val Gly Cys Gln Gly Ser Arg 100 105 Ser Glu Leu Arg Gly Tyr Pro Cys Ser Leu Trp Lys Leu Phe His Thr 120 Leu Thr Val Glu Ala Ser Thr His Pro Asp Ala Leu Val Gly Thr Gly 135 140 Phe Glu Asp Asp Pro Gln Ala Val Leu Gln Thr Met Arg Arg Tyr Val 150 155 His Thr Phe Phe Gly Cys Lys Glu Cys Gly Glu His Phe Glu Glu Met 165 170 175 Ala Lys Glu Ser Met Asp Ser Val Lys Thr Pro Asp Gln Ala Ile Leu 180 185 190 Trp Leu Trp Lys Lys His Asn Met Val Asn Gly Arg Leu Ala Gly Glu 200 Lys Pro Leu Gly Met Gly Gly Ser Ala Arg Ala Glu Gly Gly Pro Gly 215 220 Pro Gly Thr Ala Arg Thr Ala Arg Leu Pro Trp Gly Leu Ser Leu Ser 230 235 Phe Ala Ala Ser Cys His Pro Leu Cys 245 -

<210> 1229 <211> 800

<211> 800 <212>Amino acid

<213> Homo sapiens

<400> 1229 His Gly Gly Ala Thr Phe Ile Asn Ala Phe Val Thr Thr Pro Met Cys 10 Cys Pro Ser Arg Ser Ser Met Leu Thr Gly Lys Tyr Val His Asn His 20 25 Asn Val Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp Gln Ala 35 40 Met His Glu Pro Arg Thr Phe Ala Val Tyr Leu Asn Asn Thr Gly Tyr 55 Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly Ser Tyr 70 Ile Pro Pro Gly Trp Arg Glu Trp Leu Gly Leu Ile Lys Asn Ser Arg 85 90 Phe Tyr Asn Tyr Thr Val Cys Arg Asn Gly Ile Lys Glu Lys His Gly 105 Phe Asp Tyr Ala Lys Asp Tyr Phe Thr Asp Leu Ile Thr Asn Glu Ser 120 1.25 Ile Asn Tyr Phe Lys Met Ser Lys Arg Met Tyr Pro His Arg Pro Val 135 140 Met Met Val Ile Ser His Ala Glu Pro His Gly Pro Glu Asp Ser Ala 150 155 Pro Gln Phe Ser Lys Leu Tyr Pro Asn Ala Ser Gln His Ile Thr Pro 165 170 Ser Tyr Asn Tyr Ala Pro Asn Met Asp Lys His Trp Ile Met Gln Tyr 185 Thr Gly Pro Met Leu Pro Ile His Met Glu Phe Thr Asn Ile Leu Gln 200 Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Val Glu Arg 215 Leu Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Glu Asn Thr Tyr Ile 230 235 Ile Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly Leu Val 245 250 Lys Gly Lys Ser Met Pro Tyr Asp Phe Asp Ile Arg Val Pro Phe Phe 260 265 Ile Arg Gly Pro Ser Val Glu Pro Gly Ser Ile Val Pro Gln Ile Val 280 Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly Leu Asp 295 300 Thr Pro Pro Asp Val Asp Gly Lys Ser Val Leu Lys Leu Leu Asp Pro 310 315 Glu Lys Pro Gly Asn Arg Phe Arg Thr Asn Lys Lys Ala Lys Ile Trp 330 Arg Asp Thr Phe Leu Val Glu Arg Gly Lys Phe Leu Arg Lys Lys Glu 345 Glu Ser Ser Lys Asn Ile Gln Gln Ser Asn His Leu Pro Lys Tyr Glu 360 365 Arg Val Lys Glu Leu Cys Gln Gln Ala Arg Tyr Gln Thr Ala Cys Glu 375 380 Gln Pro Gly Gln Lys Trp Gln Cys Ile Glu Asp Thr Ser Gly Lys Leu 390 395 Arg Ile His Lys Cys Lys Gly Pro Ser Asp Leu Leu Thr Val Arg Gln 405 410 Ser Thr Arg Asn Leu Tyr Ala Arg Gly Phe His Asp Lys Asp Lys Glu 425 Cys Ser Cys Arg Glu Ser Gly Tyr Arg Ala Ser Arg Ser Gln Arg Lys 440 Ser Gln Arg Gln Phe Leu Arg Asn Gln Gly Thr Pro Lys Tyr Lys Pro

455 Arg Phe Val His Thr Arg Gln Thr Arg Ser Leu Ser Val Glu Phe Glu 475 470 Gly Glu Ile Tyr Asp Ile Asn Leu Glu Glu Glu Glu Glu Leu Gln Val 490 485 Leu Gln Pro Arg Asn Ile Ala Lys Arg His Asp Glu Gly His Lys Gly 500 505 Pro Arg Asp Leu Gln Ala Ser Ser Gly Gly Asn Arg Gly Arg Met Leu 520 525 Ala Asp Ser Ser Asn Ala Val Gly Pro Pro Thr Thr Val Arg Val Thr 540 His Lys Cys Phe Ile Leu Pro Asn Asp Ser Ile His Cys Glu Arg Glu 555 Leu Tyr Gln Ser Ala Arg Ala Trp Lys Asp His Lys Ala Tyr Ile Asp 570 Glu Glu Ile Glu Ala Leu Gln Asp Lys Ile Lys Asn Leu Arg Glu Val 585 Arg Gly His Leu Lys Arg Arg Lys Pro Glu Glu Cys Ser Cys Ser Lys 600 Gln Ser Tyr Tyr Asn Lys Glu Lys Gly Val Lys Lys Gln Glu Lys Leu 615 Lys Ser His Leu His Pro Phe Lys Glu Ala Ala Gln Glu Val Asp Ser 630 635 Lys Leu Gln Leu Phe Lys Glu Asn Asn Arg Arg Lys Lys Glu Arg 645 650 Lys Glu Lys Arg Arg Gln Arg Lys Gly Glu Glu Cys Ser Leu Pro Gly 665 Leu Thr Cys Phe Thr His Asp Asn Asn His Trp Gln Thr Ala Pro Phe 675 680 Trp Asn Leu Gly Ser Phe Cys Ala Cys Thr Ser Ser Asn Asn Asn Thr 695 700 Tyr Trp Cys Leu Arg Thr Val Asn Glu Thr His Asn Phe Leu Phe Cys 710 715 720 Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Met Asn Thr Asp Pro 725 730 Tyr Gln Leu Thr Asn Thr Val His Thr Val Glu Arg Gly Ile Leu Asn 740 745 Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Gln Gly Tyr Lys 760 Gln Cys Asn Pro Arg Pro Lys Asn Leu Asp Val Gly Asn Lys Asp Gly 775 780 Gly Ser Tyr Asp Leu His Arg Gly Gln Leu Trp Asp Gly Trp Glu Gly

<210> 1230 <211> 698

<212>Amino acid <213> Homo sapiens

Gln Leu Val Leu Gly Arg Leu Thr Ser Pro Ala Ala Ser Glu Lys Pro 70 75 Asp Leu Ala Gly Tyr Glu Ala Gln Gly Ala Arg Pro Lys Arg Thr Gln Arg Leu Ser Ala Glu Thr Trp Asp Leu Leu Arg Leu Pro Leu Glu Arg Glu Gln Asn Gly Asp Ser His His Ser Gly Asp Trp Arg Gly Pro Ser 120 125 Arg Asp Ser Leu Pro Leu Pro Val Arg Ser Arg Lys Tyr Gln Glu Gly 135 140 Pro Asp Ala Glu Arg Arg Pro Arg Glu Gly Ser His Ser Pro Leu Asp 150 155 Ser Ala Asp Val Arg Val His Val Pro Arg Thr Ser Ile Pro Arg Ala 170 165 Pro Ser Ser Asp Glu Glu Cys Phe Phe Asp Leu Leu Thr Lys Phe Gln . 185 180 Ser Ser Arg Met Asp Asp Gln Arg Cys Pro Leu Asp Asp Glv Gln Ala 200 Gly Ala Ala Glu Ala Thr Ala Ala Pro Thr Leu Glu Asp Arg Ile Ala 215 Gln Pro Ser Met Thr Ala Ser Pro Gln Thr Glu Glu Phe Phe Asp Leu 230 235 Ile Ala Ser Ser Gln Ser Arg Arg Leu Asp Asp Gln Arg Ala Ser Val 245 250 Gly Ser Leu Pro Gly Leu Arg Ile Thr His Ser Asn Ala Gly His Leu 260 . 265 Arg Gly His Gly Glu Pro Gln Glu Pro Gly Asp Asp Phe Phe Asn Met Leu Ile Lys Tyr Gln Ser Ser Arg Ile Asp Asp Gln Arg Cys Pro Pro 295 300 Pro Asp Val Leu Pro Arg Gly Pro Thr Met Pro Asp Glu Asp Phe Phe 315 310 Ser Leu Ile Gln Arg Val Gln Ala Lys Arg Met Asp Glu Gln Arg Val 330 Asp Leu Ala Gly Gly Pro Gly Ala Gly Gly Arg Arg Pro Ala Arg Ala 345 Pro Ala Ala Val Pro Ala Trp Cys Glu Leu Arg Pro Cys Ala His Arg 360 Gln Ala His Pro Ala Pro Thr Pro Gly Arg Arg Ser His Ser His Ser 375 380 His Val Leu Pro Arg Pro Leu Pro Arg Thr Gly Thr Gly His Ala Ala 390 395 Pro Arg Pro Pro Arg Pro Arg Ala Thr Gly Ser Gly Gln Ala Ala Arg 410 Gly Gly Arg Ala Cys Phe His Pro Gly Leu Ala Pro Met Ala Leu Ser 425 Phe Leu Pro Ser Ala Pro Ala Ala Gly Arg Thr Gly Pro Ser Ala Cys 440 Arg Pro Arg Pro Gly Ala Val Arg Leu Pro His Pro Leu Pro Gln Ala 455 460 Leu Pro Val Leu Pro Cys Pro Ala Lys Cys Glu Thr Leu Leu Ser Pro 470 475 Ser Pro Ser Pro Lys Val Ser Leu Ser Arg Leu Leu Gly Pro Pro Arg 490 485 Thr Gly Pro Cys Ser Val Pro Pro Glu Leu Val Leu Gly Trp Pro Cys 505 Asp Arg His Ala Pro Pro Leu Gln Leu Arg Pro Gly Ala Gly Leu Pro 520 525 Pro Ser Leu Ser Pro His Ser Pro Ala Arg Gly Gln Gln Pro Gln Lys 535 540 Ala Pro Gln Thr Thr His Gly Arg Pro Gly Cys Ser Gly Ser Pro Glu 550 555 Val Pro Pro Ala Glu Ser Gln Gly Pro Ala Gly Ala Ser Thr Gly Ala

565 570 Gly Pro Ile Ser Lys Ala Glu Gly Met Ala Gly His Glu Leu Arg His 585 Ser Lys Thr Pro Ser Gln Glu Lys Gly Gln Gly Leu Val Leu Gly Met 600 Leu Thr Gly Ser Lys Ser Ser Ala Gln Ser Gly Trp Glu Val Ala Pro 615 620 Gly Ser Val Thr Leu Thr Gln Val Gly Gly Trp Ser Val Glu Ala Gly 625 630 635 Glu Ala Ser Leu Ser Ser Thr Leu Gln Thr Pro His Met Arg Thr Pro 650 Leu Leu Pro Pro Ala Gly Gly Asp Asp Ile Thr Ala Leu Ser Met Gly 665 Arg Gly Leu Thr Gly His Gln Val Arg Asp Pro Arg Thr Gly Arg Thr 680 Cys Trp Ser Leu Arg Trp Ala Pro Gly Ala 695

<210> 1231 <211> 131 <212>Amino acid <213> Homo sapiens

<400> 1231 Asn Ser Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro 10 Val Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro 25 Ile Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His 40 Glu Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val 55 Gly Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn 70 75 Leu Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro 90 Gln His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp 105 Ser Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr Arg Leu Ala Lys 115 120 Asp Gly Leu 130 131

<210> 1232 <211> 71 <212>Amino acid <213> Homo sapiens

c400s 1232 Gln Glu Ser Gly Phe Ser Cys Lys Gly Pro Gly Gln Asn Val Ala Val 1 15 1 10 15 Thr Arg Ala His Pro Asp Ser Gln Gly Arg Arg Arg Arg Pro Glu Arg 20 20 21 Gly Ala Arg Gly Gln Val Phe Tyr Asn Ser Glu Tyr Gly Glu Leu

35 40 45
Ser Glu Pro Ser Glu Glu Asp His Cys Ser Pro Ser Ala Arg Val Thr
50 55 60
Phe Phe Thr Asp Asn Ser Tyr
65 70 71

<210> 1233 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1233

Val Ile Val His Ala Arg Pro Ile Arg Thr Arg Ala Ser Lys Tyr Tyr 10 Ile Pro Glu Ala Val Tyr Gly Leu Pro Ala Tyr Pro Ala Tyr Ala Gly 20 25 Gly Gly Gly Phe Val Leu Ser Gly Ala Thr Leu His Arg Leu Ala Gly 3.5 40 Ala Cys Ala Gln Val Glu Leu Phe Pro Ile Asp Asp Val Phe Leu Gly 55 Met Cys Leu Gln Arg Leu Arg Leu Thr Pro Glu Pro His Pro Ala Phe 70 75 Arg Thr Phe Gly Ile Pro Gln Pro Ser Ala Ala Pro His Leu Ser Thr 85 90 Phe Asp Pro Cys Phe Tyr Arg Glu Leu Val Val Wal His Gly Leu Ser 105 Ala Ala Asp Ile Trp Leu Met Trp Arg Leu Leu His Gly Pro His Gly 115 120 125 Pro Ala Cys Ala His Pro Gln Pro Val Ala Ala Gly Pro Phe Gln Trp 135 Asp Ser 145 146

<210> 1234 <211> 299 <212>Amino acid <213> Homo sapiens

<400> 1234

Met Ala Ser Ala Ala Cys Ser Met Asp Pro Ile Asp Ser Phe Glu Leu 10 Leu Asp Leu Leu Phe Asp Arg Gln Asp Gly Ile Leu Arg His Val Glu 25 Leu Gly Glu Gly Trp Gly His Val Lys Asp Gln Val Leu Pro Asn Pro Asp Ser Asp Asp Phe Leu Ser Ser Ile Leu Gly Ser Gly Asp Ser Leu 55 Pro Ser Ser Pro Leu Trp Ser Pro Glu Gly Ser Asp Ser Gly Ile Ser 70 75 Glu Asp Leu Pro Ser Asp Pro Gln Asp Thr Pro Pro Arg Ser Gly Pro 85 90 Ala Thr Ser Pro Ala Gly Cys His Pro Ala Gln Pro Gly Lys Gly Pro 100 105 Cys Leu Ser Tyr His Pro Gly Asn Ser Cys Ser Thr Thr Thr Pro Gly

120 Pro Val Ile Gln Gln Gln His His Leu Gly Ala Ser Tyr Leu Leu Arg 135 Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys 150 155 Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu 165 170 Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg 185 Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Glu Tyr Ile 200 205 Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser 210 . 215 220 Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly 230 235 Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu 245 250 Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp 260 265 Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro 280 Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr

<210> 1235

<211> 1098

<212>Amino acid <213> Homo sapiens

<400> 1235 Ala Arg Gly Arg Arg Ser Arg Pro Val Trp Ala Ala Ser Trp Gly Gly 10 Arg Gly Arg Pro Ala Ala Arg Arg Arg Pro Arg Gly Leu Ala Ala Thr Met Gly Phe Glu Leu Asp Arg Phe Asp Gly Asp Val Asp Pro Asp Leu Lys Cys Ala Leu Cys His Lys Val Leu Glu Asp Pro Leu Thr Thr Pro Cys Gly His Val Phe Cys Ala Gly Cys Val Leu Pro Trp Val Val Gln Glu Gly Ser Cys Pro Ala Arg Cys Arg Gly Arg Leu Ser Ala Lys Glu Leu Asn His Val Leu Pro Leu Lys Arg Leu Ile Leu Lys Leu Asp Ile 105 Lys Cys Ala Tyr Ala Thr Arg Gly Cys Gly Arg Val Val Lys Leu Gln 120 Gln Leu Pro Glu His Leu Glu Arg Cys Asp Phe Ala Pro Ala Arg Cys 135 140 Arg His Ala Gly Cys Gly Gln Val Leu Leu Arg Arg Asp Val Glu Ala 150 155 His Met Arg Asp Ala Cys Asp Ala Arg Pro Val Gly Arg Cys Gln Glu 165 170 Gly Cys Gly Leu Pro Leu Thr His Gly Glu Gln Arg Ala Gly Gly His 180 185 Cys Cys Ala Arg Ala Leu Arg Ala His Asn Gly Ala Leu Gln Ala Arg 200 205 Leu Gly Ala Leu His Lys Ala Leu Lys Lys Glu Ala Leu Arg Ala Gly 215 220 Lys Arg Glu Lys Ser Leu Val Ala Gln Leu Ala Ala Ala Gln Leu Glu

225					230					235					240
Leu	Gln	Met	Thr	Ala 245		Arg	Tyr	Glr	Lys 250		Phe	Thr	Glu	Tyr 255	Ser
Ala	Arg	Leu	Asp 260		Leu	Ser	Arg	Cys 265		Ala	Ala	Pro	270		Gly
Lys		275					280					285	,		
	290		Gly			295					300)			
305			Ser		310					315					320
			Ala	325					330)			_	335	
			Asn 340					345					350		
		355	Phe				360					365			
	370		Pro			375					380				
385			Thr		390					395					400
			Lys	405					410				_	415	-
Leu			Glu 420					425					430		
ASD		435	Gly				440					445			
	450		Val			455					460				
465			Cys		470					475		Ile			480
			Ile	485					490					495	
			Asp 500 Ala					505					510		
		515	Ile				520					525	-		
	530		Arg			535					540			_	
545			His		550					555					560
			His	565					570					575	Ile
			580 Gln					585					590		Glu
		595	Asn				600					605			
	610		Ser			615					620				
625					630					635					640
			Thr	645					650					655	
			Pro 660					665		,			670		
		675	Glu				680					685			
	690		Thr			695					700				
705			Ser		710					715					720
				725					730				Ile	735	-
ALA	HLS	гуз	Met	Gln	Gln	Leu	Lys	Glu	Gln	Tyr	Arg	Glu	Ser	Trp	Met

```
745
Leu His Asn Ser Gly Phe Arg Asn Tyr Asn Thr Ser Ile Asp Val Arg
     755 760 765
Arg His Glu Leu Ser Asp Ile Thr Glu Leu Pro Glu Lys Ser Asp Lys
  770 775 780
Asp Ser Ser Ser Ala Tyr Asn Thr Gly Glu Ser Cys Arg Ser Thr Pro
     790 795
Leu Thr Leu Glu Ile Ser Pro Asp Asn Ser Leu Arg Arg Ala Ala Glu
           805 810
Gly Ile Ser Cys Pro Ser Ser Glu Gly Ala Val Gly Thr Thr Glu Ala
        820 825
Tyr Gly Pro Ala Ser Lys Asn Leu Leu Ser Ile Thr Glu Asp Pro Glu
     835 840 845
Val Gly Thr Pro Thr Tyr Ser Pro Ser Leu Lys Glu Leu Asp Pro Asn
  850 855 860
Gln Pro Leu Glu Ser Lys Glu Arg Arg Ala Ser Asp Gly Ser Arg Ser
              870
                            875
Pro Thr Pro Ser Gln Lys Leu Gly Ser Ala Tyr Leu Pro Ser Tyr His
                          890 895
His Ser Pro Tyr Lys His Ala His Ile Pro Ala His Ala Gln His Tyr
       900
                       905
Gln Ser Tyr Met Gln Leu Ile Gln Gln Lys Ser Ala Val Glu Tyr Ala
    915 920
                                  925
Gln Ser Gln Met Ser Leu Val Ser Met Cys Lys Asp Leu Ser Ser Pro
  930 935
                               940
Thr Pro Ser Glu Pro Arg Met Glu Trp Lys Val Lys Ile Arg Ser Asp
            950 955
Gly Thr Arg Tyr Ile Thr Lys Arg Pro Val Arg Asp Arg Leu Leu Arg
           965 970 975
Glu Arg Ala Leu Lys Ile Arg Glu Glu Arg Ser Gly Met Thr Thr Asp
                    985
Asp Asp Ala Val Ser Glu Met Lys Met Gly Arg Tyr Trp Ser Lys Glu
   995 1000
Glu Arg Lys Gln His Leu Val Lys Ala Lys Glu Gln Arg Arg Arg Arg
 1010 1015 1020
Glu Phe Met Met Gln Ser Arg Leu Asp Cys Leu Lys Glu Gln Gln Ala
     1030 1035
Ala Asp Asp Arg Lys Glu Met Asn Ile Leu Glu Leu Ser His Lys Lys
          1045 1050 1055
Met Met Lys Lys Arg Asn Lys Lys Ile Phe Asp Asn Trp Met Thr Ile
       1060 1065 1070
Gln Glu Leu Leu Thr His Gly Thr Lys Ser Pro Asp Gly Thr Arg Val
                   1080
Tyr Asn Ser Phe Leu Ser Val Thr Thr Val
                1095 1098
```

<210> 1236 <211> 51

<212>Amino acid

<213> Homo sapiens

<400> 1236

Phe Phe Phe Leu Val Glu Met Gly Phe Cys His Val Gly Gln Gly Gly 3.0 Leu Thr Leu Ile Gly Ser Ser Asn Leu Pro Ala Ser Ala Ser Lys Ser 20 25 Ala Gly Ile Thr Gly Val Ser His Cys Ala Arg Pro Asp Phe Lys Ser 35 40 45 Cys Val Glu

50 51

<210> 1237 <211> 70 <212>Amino acid <213> Homo sapiens

<210> 1238 <211> 114 <212>Amino acid <213> Homo sapiens

Ala Glu 114

> <210> 1239 <211> 174 <212>Amino acid <213> Homo sapiens

<400> 1239 Met Arg Arg Phe Leu Ser Lys Val Tyr Ser Phe Pro Met Arg Lys Leu

10 Ile Leu Phe Leu Val Phe Pro Val Val Arg Gln Thr Pro Thr Gln His 25 Phe Lys Asn Gln Phe Pro Ala Leu His Trp Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr Asn Lys Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser Gln Val Thr Phe Arg Gly 75 Met Thr Ser Glu Cys Ser Glu Ile Arg Gln Ala Gly Arg Pro Asn Lys 90 Pro Asp Ser Ile Thr Val Val Ile Thr Lys Val Thr Asp Ser Tyr Pro 105 Glu Pro Thr Gln Leu Leu Met Gly Thr Lys Ser Val Cys Glu Val Gly 120 Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly Ala Met Phe Ser Leu Gln 135 Glu Gly Asp Lys Leu Met Val Asn Val Ser Asp Ile Ser Leu Val Asp 150 Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly Ala Phe Leu Leu 170

<210> 1240

<211> 425

<212>Amino acid

<213> Homo sapiens

<400> 1240 Phe Val Trp Asp Glu Val Ala Gln Arg Ser Gly Cys Glu Glu Arg Trp 10 Leu Val Ile Asp Arg Lys Val Tyr Asn Ile Ser Glu Phe Thr Arg Arg His Pro Gly Gly Ser Arg Val Ile Ser His Tyr Ala Gly Gln Asp Ala 40 Thr Asp Pro Phe Val Ala Phe His Ile Asn Lys Gly Leu Val Lys Lys 55 Tyr Met Asn Ser Leu Leu Ile Gly Glu Leu Ser Pro Glu Gln Pro Ser 70 Phe Glu Pro Thr Lys Asn Lys Glu Leu Thr Asp Glu Phe Arg Glu Leu 90 Arg Ala Thr Val Glu Arg Met Gly Leu Met Lys Ala Asn His Val Phe 105 Phe Leu Leu Tyr Leu Leu His Ile Leu Leu Leu Asp Gly Ala Ala Trp 120 Leu Thr Leu Trp Val Phe Gly Thr Ser Phe Leu Pro Phe Leu Leu Cys 135 140 Ala Val Leu Leu Ser Ala Val Gln Ala Gln Ala Gly Trp Leu Gln His 150 155 Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp Asn His Leu 170 Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro Ala Ser Trp 185 Trp Asn His Met His Phe Glm His His Ala Lys Pro Asn Cys Phe Arg 200 205 Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Ala Leu Gly Lys 215 220 Ile Leu Ser Val Glu Leu Gly Lys Gln Lys Lys Lys Tyr Met Pro Tyr 230 235 Asn His Gln His Lys Tyr Phe Phe Leu Ile Gly Pro Pro Ala Leu Leu

```
245
                           250
Pro Leu Tyr Phe Gln Trp Tyr Ile Phe Tyr Phe Val Ile Gln Arg Lys
        260 265
Lys Trp Val Asp Leu Ala Trp Met Ile Thr Phe Tyr Val Arg Phe Phe
     275 280
Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu Gly Leu Phe
        295 300
Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp Val Thr Gln
305 310
Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn Met Asp Trp
           325
                          330 335
Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys Ser Ala Phe
      340
                     345
Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu His His Leu
                        365
                    360
Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala Pro Leu Val
                 375 380
Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser Lys Pro Leu
            390 395
Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu Ser Gly Gln
                        410
Leu Trp Leu Asp Ala Tyr Leu His Gln
        420
```

<210> 1241

<211> 152

<212>Amino acid

<213> Homo sapiens

<400> 1241 Gln Cys Gly Gly Ile Pro Tyr Asn Thr Thr Gln Phe Leu Met Asn Asp 1 10 15 Arg Asp Pro Glu Glu Pro Asn Leu Asp Val Pro His Gly Ile Ser His Pro Gly Ser Ser Gly Glu Ser Glu Ala Gly Asp Ser Asp Gly Arg Gly 40 Arg Ala His Gly Glu Phe Gln Arg Lys Asp Phe Ser Glu Thr Tyr Glu 55 Arg Phe His Thr Glu Ser Leu Gln Gly Arg Ser Lys Gln Glu Leu Val 70 75 Arg Asp Tyr Leu Glu Leu Glu Lys Arg Leu Ser Gln Ala Glu Glu Glu 90 Thr Arg Arg Leu Gln Gln Leu Gln Ala Cys Thr Gly Gln Gln Ser Cys 100 105 Arg Gln Val Glu Glu Leu Ala Ala Glu Val Gln Arg Leu Arg Thr Glu 120 Asn Gln Arg Leu Arg Gln Glu Asn Gln Met Trp Asn Arg Glu Gly Cys 130 135 Arg Cys Asp Glu Glu Pro Gly Thr 150 152

<210> 1242 <211> 191 <212>Amino acid

<213> Homo sapiens

<400> 1242 Ser Pro Glu Arg Ser Ser Leu Ser Val Gly Arg Glu Lys Ala Met Glu 10 Val Pro Pro Pro Ala Pro Arg Ser Phe Leu Cys Arg Ala Leu Cys Leu 2.0 25 Phe Pro Arg Val Phe Ala Ala Glu Ala Val Thr Ala Asp Ser Glu Val 3.5 40 Leu Glu Glu Arg Gln Lys Arg Leu Pro Tyr Val Pro Glu Pro Tyr Tyr 55 Pro Glu Ser Gly Trp Asp Arg Leu Arg Glu Leu Phe Gly Lys Asp Val Thr Gly Ser Leu Phe Arg Ile Asn Val Gly Leu Arg Gly Leu Val Ala 90 Gly Gly Ile Ile Gly Ala Leu Leu Gly Thr Pro Val Gly Gly Leu Leu 1.05 Met Ala Phe Gln Lys Tyr Ser Gly Glu Thr Val Gln Glu Arg Lys Gln 120 Lys Asp Arg Lys Ala Leu His Glu Leu Lys Leu Glu Glu Trp Lys Gly 135 Arg Leu Gln Val Thr Glu His Leu Pro Glu Lys Ile Glu Ser Ser Leu 150 155 Gln Glu Asp Glu Pro Glu Asn Asp Ala Lys Lys Ile Glu Ala Leu Leu 170 Asn Leu Pro Arg Asn Pro Ser Val Ile Asp Lys Gln Asp Lys Asp 185

<210> 1243 <211> 381 <212>Amino acid <213> Homo sapiens

<400> 1243 Arg Ser Leu Gly Leu Ala Val Thr Glu Met Val Pro Trp Val Arg Thr Met Gly Gln Lys Leu Lys Gln Arg Leu Arg Leu Asp Val Gly Arg Glu Ile Cys Arg Gln Tyr Pro Leu Phe Cys Phe Leu Leu Cys Leu Ser Ala Ala Ser Leu Leu Leu Asn Arg Tyr Ile His Ile Leu Met Ile Phe Trp Ser Phe Val Ala Gly Val Val Thr Phe Tyr Cys Ser Leu Gly Pro 75 Asp Ser Leu Leu Pro Asm Ile Phe Phe Thr Ile Lys Tyr Lys Pro Lys 90 Gln Leu Gly Leu Gln Glu Leu Phe Pro Gln Gly His Ser Cys Ala Val 1.05 Cys Gly Lys Val Lys Cys Lys Arg His Arg Pro Ser Leu Leu Glu 120 Asn Tyr Gln Pro Trp Leu Asp Leu Lys Ile Ser Ser Lys Val Asp Ala 135 140 Ser Leu Ser Glu Val Leu Glu Leu Val Leu Glu Asn Phe Val Tyr Pro 150 755 Trp Tyr Arg Asp Val Thr Asp Asp Glu Ser Phe Val Asp Glu Leu Arg 165 170 Ile Thr Leu Arg Phe Phe Ala Ser Val Leu Ile Arg Arg Ile His Lys 185 Val Asp Ile Pro Ser Ile Ile Thr Lys Lys Leu Leu Lys Ala Ala Met

200 205 Lys His Ile Glu Val Ile Val Lys Ala Arg Gln Lys Val Lys Asn Thr 210 215 220 Glu Phe Leu Gln Gln Ala Ala Leu Glu Glu Tyr Gly Pro Glu Leu His 225 230 235 Val Ala Leu Arg Ser Arg Arg Asp Glu Leu His Tyr Leu Arg Lys Leu 250 Thr Glu Leu Leu Phe Pro Tyr Ile Leu Pro Pro Lys Ala Thr Asp Cys 265 Arg Ser Leu Thr Leu Leu Ile Arg Glu Ile Leu Ser Gly Ser Val Phe 275 280 285 Leu Pro Ser Leu Asp Phe Leu Ala Asp Pro Asp Thr Val Asn His Leu 295 300 Leu Ile Ile Phe Ile Asp Asp Ser Pro Pro Glu Lys Ala Thr Glu Pro 310 315 Ala Ser Pro Leu Val Pro Phe Leu Gln Lys Phe Ala Glu Pro Arg Asn 325 330 Lys Lys Pro Ser Val Leu Lys Leu Glu Leu Lys Gln Ile Arg Glu Gln 345 Gln Asp Leu Leu Phe Arg Phe Met Asn Phe Leu Lys Gln Glu Gly Ala 360 Val His Val Leu His Val Leu Phe Asp Cys Gly Gly Ile

<210> 1244 <211> 371

<212>Amino acid <213> Homo sapiens

<400> 1244 Gln Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser Glu Leu 5 Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr Pro Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr Met Lys Gly Gly Phe Tyr Pro Arg Gly Val Thr Ser Glu Ile Ala Phe His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu Thr Lys Ala Thr Val Gln Ser Val Leu Leu Asp Ser Ala Gly Lys Ala Cys Gly Val Ser 90 Val Lys Lys Gly His Glu Leu Val Asn Ile Tyr Cys Pro Ile Val Val 105 Ser Asn Ala Gly Leu Phe Asn Thr Tyr Glu His Leu Leu Pro Gly Asn 120 Ala Arg Cys Leu Pro Gly Val Lys Gln Gln Leu Gly Thr Val Arg Pro 135 Gly Leu Gly Met Thr Ser Val Phe Ile Cys Leu Arg Gly Thr Lys Glu 150 155 Asp Leu His Leu Pro Ser Thr Asn Tyr Tyr Val Tyr Tyr Asp Thr Asp 165 170 Met Asp Gln Ala Met Glu Arg Tyr Val Ser Met Pro Arg Glu Glu Ala 180 185 Ala Glu His Ile Pro Leu Leu Phe Phe Ala Phe Pro Ser Ala Lys Asp 200 205 Pro Thr Trp Glu Asp Arg Phe Pro Gly Arg Ser Thr Met Ile Met Leu 215 220 Ile Pro Thr Ala Tyr Glu Trp Phe Glu Glu Trp Gln Ala Glu Leu Lys

230 Gly Lys Arg Gly Ser Asp Tyr Glu Thr Phe Lys Asn Ser Phe Val Glu 245 250 Ala Ser Met Ser Val Val Leu Lys Leu Phe Pro Gln Leu Glu Gly Lys 265 Val Glu Ser Val Thr Ala Gly Ser Pro Leu Thr Asn Gln Phe Tyr Leu 280 Ala Ala Pro Arg Gly Ala Cys Tyr Gly Ala Asp His Asp Leu Gly Arg 295 300 Leu His Pro Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro Ile Pro 310 315 Asn Leu Tyr Leu Thr Gly Gln Asp Ile Phe Thr Cys Gly Leu Val Gly 325 330 Ala Leu Gln Gly Ala Leu Leu Cys Ser Ser Thr Ile Leu Lys Arg Asn 340 345 350 ⋅ Leu Tyr Ser Asp Leu Lys Asn Leu Asp Ser Arg Ile Arg Ala Gln Lys 355 360 Lys Lys Asn

370 371

<210> 1245 <211> 295 <212>Amino acid <213> Homo sapiens

<400> 1245 Arg Pro Gln Glu Thr Arg Val Leu Gln Val Ser Cys Gly Arg Ala His 10 Ser Leu Val Leu Thr Asp Arg Glu Gly Val Phe Ser Met Gly Asn Asn 25 Ser Tyr Gly Gln Cys Gly Arg Lys Val Val Glu Asn Glu Ile Tyr Ser 40 Glu Ser His Arg Val His Arg Met Gln Asp Phe Asp Gly Gln Val Val 55 Gln Val Ala Cys Gly Gln Asp His Ser Leu Phe Leu Thr Asp Lys Gly 70 75 Glu Val Tyr Ser Cys Gly Trp Gly Ala Asp Gly Gln Thr Gly Leu Gly 85 90 His Tyr Asn Ile Thr Ser Ser Pro Thr Lys Leu Gly Gly Asp Leu Ala 105 110 Gly Val Asn Val Ile Gln Val Ala Thr Tyr Gly Asp Cys Cys Leu Ala 120 125 Val Ser Ala Asp Gly Gly Leu Phe Gly Trp Gly Asn Ser Glu Tyr Leu 135 Gln Leu Ala Ser Val Thr Asp Ser Thr Gln Val Asn Val Pro Arg Cys 150 155 Leu His Phe Ser Gly Val Gly Lys Val Arg Gln Ala Ala Cys Gly Gly 165 170 Thr Gly Cys Ala Val Leu Asn Gly Glu Gly His Val Phe Val Trp Gly 185 190 Tyr Gly Ile Leu Gly Lys Gly Pro Asn Leu Val Glu Ser Ala Val Pro 200 205 Glu Met Ile Pro Pro Thr Leu Phe Gly Leu Thr Glu Phe Asn Pro Glu 215 220 Ile Gln Val Ser Arg Ile Arg Cys Gly Leu Ser His Phe Ala Ala Leu 230 235 Thr Asn Lys Gly Glu Leu Phe Val Trp Gly Lys Asn Ile Arg Gly Cys 245 250 Leu Gly Ile Gly Arg Leu Glu Asp Gln Tyr Phe Pro Trp Arg Val Thr

260 265 270

Met Pro Gly Glu Pro Val Asp Val Ala Cys Gly Val Asp His Met Val
275 280

Thr Leu Ala Lys Ser Phe Ile
290 295

<210> 1246 <211> 172 <212>Amino acid <213> Homo sapiens

<400> 1246 Leu Pro Phe Arg Glu Trp Leu Met Ile Val Val Ser Leu Ser Ala Ala 1 10 Ala Val Ala Ala Ala Phe Met Ala Lys Cys Arg Met Val Leu Ser Ser 25 Arg Tyr Phe Cys Ser His Phe Val Met Ser Ala Ser Arg Ala Arg Ile 40 Arg Ser Ser Phe Ser Arg Thr Ser Ser Arg Arg Ala Gly Ala Leu Tyr 55 Ser Gly Met Leu Ala Gly Trp Pro Phe Pro Cys Phe Cys Trp Val Leu 70 Ser Ala Ser Ser Ser Leu Ser Ser Gln Val Arg Ser Leu Arg Ser Ile 85 90 Cys Ser Arg Phe Ser His Ala Asp Cys Ser Trp Val Arg Ala Cys Cys 105 Ser Phe Ser Thr Phe Ser Thr Tyr Ala Cys Phe Ser Arg Asn Ser Ser 120 125 Ser Ser Leu Met Thr Leu Ala Trp Ala Leu Leu Lys Ala Trp Ser Arg 135 Ile Ser Met Cys Leu Arg Trp Ser Ser Leu Ala Val Arg Thr Ala Ala 150 155 Asn Ser Ile Ser Asn Phe Ser Phe Ser Phe Lys Asn 165 170 172

<210> 1247 <211> 361 <212>Amino acid <213> Homo sapiens

<400> 1247 Met Gln Ala Val Arg Ala Thr Ala Ser Gln Ser Leu Ser Cys Ala Arg Ala Pro Arg Glu Pro Thr Gln His Ala Leu Arg Ala His Trp Phe Pro 25 Pro Ala Ala Ala Val Gln Pro Ser Pro His Ser Gly Val Ala Ala Ala 40 45 Ala Gly Thr Trp Ser Ser Ala Phe Arg Gly Glu His Pro Leu Val Ser 55 60 Ser Gly Leu Leu Gly Val Arg Glu Gln Ser Phe Arg Leu Leu Arg 70 75 Ser Lys Ala Gly Thr His Met Tyr Leu Glu His Thr Ser His Cys Pro 90 His His Asp Asp Asp Thr Ala Met Asp Thr Pro Leu Pro Arg Pro Arg

105 Pro Leu Leu Ala Val Glu Arg Thr Gly Gln Arg Pro Leu Trp Ala Pro 115 120 Ser Leu Glu Leu Pro Lys Pro Asp Met Gln Pro Leu Pro Ala Gly Ala 135 Phe Leu Glu Glu Val Ala Glu Gly Thr Pro Ala Gln Thr Glu Ser Glu 150 155 Pro Lys Val Leu Asp Pro Glu Glu Asp Leu Leu Cys Ile Ala Lys Thr 170 Phe Ser Tyr Leu Arg Glu Ser Gly Trp Tyr Trp Gly Ser Ile Thr Ala 185 Ser Glu Ala Arg Gln His Leu Gln Lys Met Pro Glu Gly Thr Phe Leu 195 200 205 Val Arg Asp Ser Thr His Pro Ser Tyr Leu Phe Thr Leu Ser Val Lys 215 Thr Thr Arg Gly Pro Thr Asn Val Arg Ile Glu Tyr Ala Asp Ser Ser 230 235 Phe Arg Leu Asp Ser Asn Cys Leu Ser Arg Pro Arg Ile Leu Ala Phe 245 250 Pro Asp Val Val Ser Leu Val Gln His Tyr Val Ala Ser Cys Thr Ala 265 Asp Thr Arg Ser Asp Ser Pro Asp Pro Ala Pro Thr Pro Ala Leu Pro 275 280 Met Pro Lys Glu Asp Ala Pro Ser Asp Pro Ala Leu Pro Ala Pro Pro 295 300 Pro Ala Thr Ala Val His Leu Lys Leu Val Gln Pro Phe Val Arg Arg 310 315 Ser Ser Ala Arg Ser Leu Gln His Leu Cys Arg Leu Val Ile Asn Arg 325 330 Leu Val Ala Asp Val Asp Cys Leu Pro Leu Pro Arg Arg Met Ala Asp 345 Tyr Leu Arg Gln Tyr Pro Phe Gln Leu 360 361

<210> 1248 <211> 279

<212>Amino acid <213> Homo sapiens

<400> 1248

Phe Val Asp Ile Phe Gln Arg Trp Lys Glu Cys Arg Gly Lys Ser Pro 10 Ala Gln Ala Glu Leu Ser Tyr Leu Asn Lys Ala Lys Trp Leu Glu Met 25 Tyr Gly Val Asp Met His Val Val Arg Gly Arg Asp Gly Cys Glu Tyr 40 Ser Leu Gly Leu Thr Pro Thr Gly Ile Leu Ile Phe Glu Gly Ala Asn Lys Ile Gly Leu Phe Phe Trp Pro Lys Ile Thr Lys Met Asp Phe Lys 75 Lys Ser Lys Leu Thr Leu Val Val Val Glu Asp Asp Asp Gln Gly Arg 85 90 Glu Gln Glu His Thr Phe Val Phe Arg Leu Asp Ser Ala Arg Thr Cys 100 105 Lys His Leu Trp Lys Cys Ala Val Glu His His Ala Phe Phe Arg Leu 120 125 Arg Thr Pro Gly Asn Ser Lys Ser Asn Arg Ser Asp Phe Ile Arg Leu 135 140 Gly Ser Arg Phe Arg Phe Ser Gly Arg Thr Glu Tyr Gln Ala Thr His

155 Gly Ser Arg Leu Arg Arg Thr Ser Thr Phe Glu Arg Lys Pro Ser Lys 170 Arg Tyr Pro Ser Arg Arg His Ser Thr Phe Lys Ala Ser Asn Pro Val 185 190 Ile Ala Ala Gln Leu Cys Ser Lys Thr Asn Pro Glu Val His Asn Tyr 200 Gln Pro Gln Tyr His Pro Asn Ile His Pro Ser Gln Pro Arg Trp His 215 220 Pro His Ser Pro Asn Val Arg Pro Ser Phe Gln Asp Asp Arg Ser His 235 230 Trp Lys Ala Ser Ala Ser Gly Asp Asp Ser His Phe Asp Tyr Val His 245 250 Asp Gln Asn Gln Lys Asn Leu Gly Gly Met Gln Ser Met Met Tyr Arg 260 265 Asp Lys Leu Met Thr Ala Leu 275 279

<210> 1249 <211> 255 <212>Amino acid

<213> Homo sapiens
<220>
<221> misc_feature

<222> (1)...(255) <223> X = any amino acid or stop code

<400> 1249 Gly Gly Ile Arg Leu Ile Gln Lys Leu Thr Trp Arg Ser Arg Gln Gln 10 Asp Arg Glu Asn Cys Ala Met Lys Gly Lys His Lys Asp Glu Cys His 25 Asn Phe Ile Lys Val Phe Val Pro Arg Asn Asp Glu Met Val Phe Val 40 Cys Gly Thr Asn Ala Phe Asn Pro Met Cys Arg Tyr Tyr Arg Val Ser 55 Ile Phe Tyr Val Ile Cys Phe Phe Kaa Ser Thr Phe Leu Pro Ser Leu 70 Ile Cys Cys Xaa Ser Xaa Asn Leu Ser Ala Phe Gln Xaa Phe Val Leu 85 90 Ser Leu Val Gln Xaa Lys Asn Lys Asp Arg Ile Leu Gln Met Glu Phe 105 Xaa Tyr Lys Xaa Asn Ser Ile Ala Phe Lys Arg Ala Arg Xaa Ile Asp 115 120 125 Met Thr Leu Ala Ile Tyr Phe Ser Phe Val Leu Ser Thr Leu Xaa Tyr 135 140 Asp Gly Glu Glu Ile Ser Gly Leu Ala Arg Cys Pro Phe Asp Ala Arg 150 155 Gln Thr Asn Gly Ala Leu Phe Ala Asp Gly Lys Leu Tyr Ser Ala Thr 165 170 Val Ala Asp Phe Leu Ala Ser Asp Ala Val Ile Tyr Arg Ser Met Gly 180 185 Asp Gly Ser Ala Leu Arg Thr Ile Lys Tyr Asp Ser Lys Trp Ile Lys 195 200 Glu Pro His Phe Leu Tyr Ala Ile Lys Tyr Gly Asn Tyr Val Tyr Phe 215 220 Ser Phe Arg Glu Ile Val Ala Thr Xaa Xaa Leu Gly Lys Ala Val Asp 225 . 230

Ser Arg Val Ala Arg Tyr Glu Lys Gln Leu Val Gly Pro Thr Val 245 250 250

<210> 1250 <211> 307

<212>Amino acid <213> Homo sapiens

<400> 1250 Ala Arg Ala Leu Ala Arg Glu Arg Glu Ser Glu Ser Ala Arg Ala Asp Asp Val Thr Leu Gly Val Ser Ala Ile Leu Ala Val Asp Arg Gly Gly 20 Asn Leu Gly Ser Ala Asp Gly Trp Ala Tyr Ile Asp Val Glu Val Arg Arg Pro Trp Ala Phe Val Gly Pro Gly Cys Ser Arg Ser Ser Gly Asn 55 Gly Ser Thr Ala Tyr Gly Leu Val Gly Ser Pro Arg Trp Leu Ser Pro 70 75 Phe His Thr Gly Gly Ala Val Ser Leu Pro Arg Arg Pro Arg Gly Pro 85 90 Gly Pro Val Leu Gly Val Ala Arg Pro Cys Leu Arg Cys Val Leu Arg 100 105 Pro Glu His Tyr Glu Pro Gly Ser His Tyr Ser Gly Phe Ala Gly Arg 125 120 Asp Ala Ser Arg Ala Phe Val Thr Gly Asp Cys Ser Glu Ala Gly Leu 135 140 Val Asp Asp Val Ser Asp Leu Ser Ala Ala Glu Met Leu Thr Leu His 145 150 155 160 Asn Trp Leu Ser Phe Tyr Glu Lys Asn Tyr Val Cys Val Gly Arg Val 170 Thr Gly Arg Phe Tyr Gly Glu Asp Gly Leu Pro Thr Pro Ala Leu Thr 185 190 Gln Val Glu Ala Ala Ile Thr Arg Gly Leu Glu Ala Asn Lys Leu Gln 200 205 Leu Gln Glu Lys Gln Thr Phe Pro Pro Cys Asn Ala Glu Trp Ser Ser 215 220 Ala Arg Gly Ser Arg Leu Trp Cys Ser Gln Lys Ser Gly Gly Val Ser 230 235 Arg Asp Trp Ile Gly Val Pro Arg Lys Leu Tyr Lys Pro Gly Ala Lys 245 250 Glu Pro Arg Cys Val Cys Val Arg Thr Thr Gly Pro Pro Ser Gly Gln 260 265 Met Pro Asp Asn Pro Pro His Arg Asn Arg Gly Asp Leu Asp His Pro 275 280 Asn Leu Ala Glu Tyr Thr Gly Cys Pro Pro Leu Ala Ile Thr Cys Ser 290 295 Phe Pro Leu 305 307

<210> 1251

<211> 100

<212>Amino acid

<213> Homo sapiens

<210> 1252 <211> 464 <212>Amino acid <213> Homo sapiens

<400> 1252 Pro Ala Ala Arg Pro Pro Ser Leu Val Arg Leu Ser Pro Ser Pro Pro 10 Lys Pro Arg Ala Arg Ala Arg Ala Pro Gln Ser Val Glu Pro Ala Ala 20 25 Pro Leu Val Ala Arg Gly Ser Ser Pro Pro Ala Arg Pro Ala Pro Ala 40 Met Val Arg Pro Arg Arg Ala Pro Tyr Arg Ser Gly Ala Gly Gly Pro Leu Gly Gly Arg Gly Arg Pro Pro Arg Pro Leu Val Val Arg Ala Val Arg Ser Arg Ser Trp Pro Ala Ser Pro Arg Gly Pro Gln Pro Pro Arg 90 Ile Arg Ala Arg Ser Ala Pro Pro Met Glu Gly Ala Arg Val Phe Gly 105 Ala Leu Gly Pro Ile Gly Pro Ser Ser Pro Gly Leu Thr Leu Gly Gly 120 Leu Ala Val Ser Glu His Arg Leu Ser Asn Lys Leu Leu Ala Trp Ser 135 . 140 Gly Val Leu Glu Trp Gln Glu Lys Arg Arg Pro Tyr Ser Asp Ser Thr 150 155 Ala Lys Leu Lys Arg Thr Leu Pro Cys Gln Ala Tyr Val Asn Gln Gly 165 170 Glu Asn Leu Glu Thr Asp Gln Trp Pro Gln Lys Leu Ile Met Gln Leu 185 Ile Pro Gln Gln Leu Leu Thr Thr Leu Gly Pro Leu Phe Arg Asn Ser 200 . 205 Gln Leu Ala Gln Phe His Phe Thr Asn Arg Asp Cys Asp Ser Leu Lys 215 220 Gly Leu Cys Arg Ile Met Gly Asn Gly Phe Ala Gly Cys Met Leu Phe 235 230 Pro His Ile Ser Pro Cys Glu Val Arg Val Leu Met Leu Leu Tyr Ser 245 250 Ser Lys Lys Lys Ile Phe Met Gly Leu Ile Pro Tyr Asp Gln Ser Gly 260 265 270 Phe Val Ser Ala Ile Arg Gln Val Ile Thr Thr Arg Lys Gln Ala Val 280

Gly Pro Gly Gly Val Asn Ser Gly Pro Val Gln Ile Val Asn Asn Lys 295 Phe Leu Ala Trp Ser Gly Val Met Glu Trp Gln Glu Pro Arg Pro Glu 310 315 Pro Asn Ser Arg Ser Lys Arg Trp Leu Pro Ser His Val Tyr Val Asn 325 330 Gln Gly Glu Ile Leu Arg Thr Glu Gln Trp Pro Arg Lys Leu Tyr Met 340 345 Gln Leu Ile Pro Gln Gln Leu Leu Thr Thr Leu Val Pro Leu Phe Arq 355 360 365 Asn Ser Arg Leu Val Gln Phe His Phe Thr Lys Asp Leu Glu Thr Leu 375 380 Lys Ser Leu Cys Arg Ile Met Asp Asn Gly Phe Ala Gly Cys Val His 390 395 Phe Ser Tyr Lys Ala Ser Cys Glu Ile Arg Val Leu Met Leu Leu Tyr 410 Ser Ser Glu Lys Lys Ile Phe Ile Gly Leu Ile Pro His Asp Gln Gly 420 425 Asn Phe Val Asn Gly Ile Arg Arg Val Ile Ala Asn Gln Gln Gln Val 440 Leu Gln Arg Asn Leu Glu Gln Glu Gln Gln Arg Gly Met Gly Gly 455 460

<210> 1253 <211> 214 <212>Amino acid <213> Homo sapiens

<400> 1253 Gly Arg Pro Ala Leu Gly Arg Glu Ala Pro Pro Gln Ala Gly Leu Ser Ser Thr Pro Pro Pro Cys Ser Glu Thr Cys Thr Met Gly Pro His Ser 20 Ile Leu Arg Thr Val His Cys Arg Pro Thr Lys Thr Pro Pro Glu Pro Ser Ala Glu Pro His Pro Leu Ser Leu Leu Thr'Ser Ser Asn Thr Ser 55 Leu Ala Gly Thr Ser Leu Gly Arg Asp Leu Thr Pro Gly Gly Gly Lys 75 Pro Pro Ser Gly Gln Thr Pro Arg Asn Pro Glu Ser Pro Arg His Arg 90 Leu Gly Ser Pro Arg Gly Arg Arg Trp Leu Ala Ser Pro Thr Pro Thr 105 Gly Ser Gly Arg Ser Gly Pro Ala Ser Arg Gly Gln Arg Arg Leu Ser 120 Cys Ala Ala Gln Asp Pro Thr Ser Glu Gly Ala Ser Val Gly Ala Met 135 140 Glu Ala Gly Leu Gly Pro Pro Thr Ala Ala Pro Arg Gly Val Val Ser 150 155 Glu Ala Ala Glu Ser Leu Gly Gly Thr Leu Ser Trp Gly Ala Trp Gly 165 170 Arg Pro Pro Ala Gly Pro Ser Gly Leu Ala Gly Arg Arg Ser Arg Arg 185 Glu Ala Leu Arg Pro Asp Arg Lys Glu Ala Ser Val Met Met Ala Ala 195 200 Val Ser Ala Ile Gln Pro 210

760

<210> 1254

```
<211> 198
     <212>Amino acid
     <213> Homo sapiens
     <220>
     <221> misc_feature
     <222> (1)...(198)
     <223> X = any amino acid or stop code
     <400> 1254
Pro Gly Val Pro Thr His Gly Trp Pro Arg Ser Arg Val Leu Thr Arg
 1
                5
                                    10
Val Arg Gly Ser Arg Gly Ser Gly Lys Met Ala Ala Ala Val Val Leu
                                 25
Ala Ala Gly Leu Arg Ala Ala Arg Arg Ala Val Ala Ala Thr Gly Val
                             40
Arg Gly Gly Gln Val Arg Gly Ala Ala Gly Val Thr Asp Gly Asn Glu
                        55
Val Ala Lys Ala Gln Gln Ala Thr Pro Gly Gly Ala Ala Pro Thr Ile
 65
                    70
                                        75
Phe Ser Arg Ile Leu Asp Lys Ser Leu Pro Ala Asp Ile Leu Tyr Glu
                                    90
Asp Gln Gln Cys Leu Val Phe Arg Asp Val Ala Pro Gln Ala Pro Val
            100
                               105
His Phe Leu Val Ile Pro Lys Lys Pro Ile Pro Arg Ile Ser Gln Ala
                           120
                                              125
Glu Glu Glu Asp Gln Gln Leu Thr Tyr Val Pro Pro Leu Ser Leu Xaa
                       135
                                          140
Leu Leu Gly His Leu Leu Leu Val Ala Lys Gln Thr Ala Lys Ala Glu
                   150
                                       155
Gly Leu Gly Asp Gly Tyr Arg Leu Val Ile Asn Asp Gly Lys Leu Gly
               165
                                   170
Ala Gln Ser Val Tyr His Leu His Ile His Val Leu Gly Gly Arg Gln
           180
                               185
Leu Gln Trp Pro Pro Gly
       195
              198
    <210> 1255
    <211> 458
    <212>Amino acid
    <213> Homo sapiens
    <220>
    <221> misc feature
    <222> (1) ... (458)
    <223> X = any amino acid or stop code
```

```
Arg Phe Leu Val Ala Phe Ala Tyr Trp Asn His Tyr Leu Ser Cys Thr
Ser Pro Cys Ser Cys Tyr Arg Pro Leu Cys Arg Leu Asn Phe Gly Leu
                      55
Asn Val Val Glu Asn Leu Ala Leu Leu Val Leu Thr Tyr Val Ser Ser
                  70
                                    75
Ser Glu Asp Phe Thr Trp Val Pro Gly Xaa Gly Arg Ser Gly Glu Val
                                90
Phe Pro Glu Gly Thr Gly Leu Pro Leu Pro His Ser Asp Leu Pro Thr
               105
Ser Trp Cys Gly His Ser Leu Gln Cys Gly Ser Gln Ser Ser Phe Pro
                        120
Pro Ala Ile His Glu Asn Ala Phe Ile Val Phe Ile Ala Ser Ser Leu
                    135
Gly His Met Leu Leu Thr Cys Ile Leu Trp Arg Leu Thr Lys Lys His
                 150
                                   155
Thr Val Ser Gln Glu Asp Gly Leu Ser Leu Ala Gly Ala Pro Arg Gln
              165
                               170
Pro Arg Arg Lys Ser Arg Thr Ser Val Leu Arg Ile Arg Val Met Val
                185
          180
Arg Trp Glu Leu Ser Ser Asn Gly Asn Pro Gly Arg Gly Val Leu Gly
                        200
                             205
Leu Gly Leu Gly Leu Gly Asn Lys Leu Arg Val Val Gly Gln Asn Leu
                     215
                                      220
Gly Leu Xaa His Cys Val Trp Val Val Trp Glu Thr Gly Glu Xaa Lys
                 230
                                   235
Arg Trp Arg Leu Gln Met Gly Ile Glu Xaa Gly Val Ala Ser Arg Arg
              245
                               250
Gln Xaa Val Arg Asn Ser Val Arg Gly Leu Val Cys His Asn Ser Ser
                           265 270
Ala Pro Pro Met Tyr Met Gly Phe Phe Ser Pro Thr Val Phe Gly Gly
                         280
                                285
Gly Val Gly Gly Xaa Leu His Val Thr Phe Ile Leu His Pro Pro Glu
                     295
                                      300
Val Glu Ala Ala Gly Ile Pro Leu Leu Gly Pro Ser Leu Pro Gln
                 310
                                 315
Arg Gln Gly Arg Glu His Ile Val Val Ile Leu Ala Ala Pro Ala Cys
              325
                               330
Ala Pro Phe His Asp Arg Xaa Trp Glu Pro Arg Glu Ile Arg Pro Ser
                           345
Pro Xaa Glu Leu Gly Leu Arg Gly Glu Pro Thr Leu Ser Tyr Pro Ala
                        360
Ser Cys Arg Val Ile Arg Gln Pro Ile Pro Xaa Asp Arg Lys Ser Tyr
                    375
                                      380
Ser Trp Lys Gln Arg Leu Phe Ile Ile Asn Phe Ile Ser Phe Phe Ser
                 390
                                  395
Ala Leu Ala Val Tyr Phe Arg His Asn Met Tyr Cys Glu Ala Gly Val
                     410
             405
Tyr Thr Ile Phe Ala Ile Leu Glu Tyr Thr Val Val Leu Thr Asn Met
         420 425
Ala Phe His Met Thr Ala Trp Trp Asp Phe Gly Asn Lys Glu Leu Leu
                       440
                                         445
Ile Thr Ser Gln Pro Glu Glu Lys Arg Phe
                    455
                           458
```

<210> 1256

<211> 83

<212>Amino acid

<213> Homo sapiens

<400> 1256 Ile Asp Leu Leu Glu Ile Arg Asn Gly Pro Arg Ser His Glu Ser Phe 5 10 Gln Glu Met Asp Leu Asn Asp Asp Trp Lys Leu Ser Lys Asp Glu Val 25 Lys Ala Tyr Leu Lys Lys Glu Phe Glu Lys His Gly Ala Val Val Asn 35 40 Glu Ser His His Asp Ala Leu Val Glu Asp Ile Phe Asp Lys Glu Asp 55 Glu Asp Lys Asp Gly Phe Ile Ser Ala Arg Glu Phe Thr Tyr Lys His 70 75 Asp Glu Leu 83

<210> 1257 <211> 203 <212>Amino acid <213> Homo sapiens

<400> 1257 Pro Arg Val Arg Gly Arg Val Gly Lys Glu Gly Ala Ala Ala Lys Pro 5 10 Arg Ser Leu Leu Arg Arg Phe Gln Leu Leu Ser Trp Ser Val Cys Gly 20 25 Gly Asn Lys Asp Pro Trp Val Gln Glu Leu Met Ser Cys Leu Asp Leu 40 Lys Glu Cys Gly His Ala Tyr Ser Gly Ile Val Ala His Gln Lys His 55 Leu Leu Pro Thr Ser Pro Pro Ile Ser Gln Ala Ser Glu Gly Ala Ser 70 Ser Asp Ile His Thr Pro Ala Gln Met Leu Leu Ser Thr Leu Gln Ser 85 90 Thr Gln Arg Pro Thr Leu Pro Val Gly Ser Leu Ser Ser Asp Lys Glu 105 Leu Thr Arg Pro Asn Glu Thr Thr Ile His Thr Ala Gly His Ser Leu 120 125 Ala Ala Gly Pro Glu Ala Gly Glu Asn Gln Lys Gln Pro Glu Lys Asn 135 140 Ala Gly Pro Thr Ala Arg Thr Ser Ala Thr Val Pro Val Leu Cys Leu 155 Leu Ala Ile Ile Phe Ile Leu Thr Ala Ala Leu Ser Tyr Val Leu Cys 170 175 Lys Arg Arg Arg Gly Gln Ser Pro Gln Ser Ser Pro Asp Leu Pro Val 185 190 His Tyr Ile Pro Val Ala Pro Asp Ser Asn Thr 200 203

763

<210> 1258 <211> 195 <212>Amino acid

<213> Homo sapiens

Leu Ile Ile Ser Asn Phe Leu Lys Ala Lys Gln Lys Pro Gly Ser Thr Pro Asn Leu Gln Gln Lys Lys Ser Gln Ala Arg Leu Ala Pro Asp Ile Val Ser Ala Ser Gln Tyr Arg Lys Phe Asp Glu Phe Gln Thr Gly Ile Leu Ile Tyr Glu Leu Leu His Gln Pro Asn Pro Phe Glu Val Arg Ala Gln Leu Arg Glu Arg Asp Tyr Arg Gln Glu Asp Leu Pro Pro Leu Pro 75 Ala Leu Ser Leu Tyr Ser Pro Gly Leu Gln Gln Leu Ala His Leu Leu 90 Leu Glu Ala Asp Pro Ile Lys Arg Ile Arg Ile Gly Glu Ala Lys Arg 100 105 Val Leu Gln Cys Leu Leu Trp Gly Pro Arg Arg Glu Leu Val Gln Gln 120 125 Pro Gly Thr Ser Glu Glu Ala Leu Cys Gly Thr Leu His Asn Trp Ile 135 140 Asp Met Lys Arg Ala Leu Met Met Lys Phe Ala Glu Lys Ala Val 150 155 Asp Arg Arg Gly Val Glu Leu Glu Asp Trp Leu Cys Cys Gln Tyr 165 170 Leu Ala Ser Ala Glu Pro Gly Ala Leu Leu Gln Ser Leu Lys Leu Leu 185 Gln Leu Leu 195

<210> 1259 <211> 672 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(672)

<223> X = any amino acid or stop code

<400> 1259 Lys Arg Gly Leu Ile Val Val Met Ala His Glu Met Ile Gly Thr Gln 10 Ile Val Thr Glu Arg Gly Val Ala Leu Leu Glu Ser Gly Thr Glu Lys 25 Val Leu Leu Ile Asp Ser Arg Pro Phe Val Glu Tyr Asn Thr Ser His 40 Ile Leu Glu Ala Ile Asn Ile Asn Cys Ser Lys Leu Met Lys Arg Arg 55 Leu Gln Gln Asp Lys Val Leu Ile Thr Glu Leu Ile Gln His Ser Ala 70 75 Lys His Lys Val Asp Ile Asp Cys Ser Gln Lys Val Val Val Tyr Asp 90 Gln Ser Ser Gln Asp Val Ala Ser Leu Ser Ser Asp Cys Phe Leu Thr 105 110 Val Leu Leu Gly Lys Leu Glu Lys Ser Phe Asn Ser Val His Leu Leu 120 125 Ala Gly Gly Phe Ala Glu Phe Ser Arg Cys Phe Pro Gly Leu Cys Glu 135 140 Gly Lys Ser Thr Leu Val Pro Thr Cys Ile Ser Gln Pro Cys Leu Pro 1.50 155 Val Ala Asn Ile Gly Pro Thr Arg Ile Leu Pro Asn Leu Tyr Leu Gly

				165					170)				175	
			180)				185					190		Ile
Gly	Tyr	Val 195	Leu	Aşn	ı Ala	Ser	Asn 200	Thr	Cys	Pro	Lys	Pro 205	Asp	Phe	Ile
Pro	Glu 210	Ser	His	Phe	Leu	Arg 215	Val	Pro	Val	Asn	Asp 220	Ser	Phe	Суа	Glu
Lys 225	Ile	Leu	Pro	Trp	Leu 230		Lys	Ser	Val	Asp 235			Glu	ьуs	Ala 240
Lys	Ala	Ser	Asn	Gly 245	Cys		Leu	Val	His	Cys	Leu	Ala	Gly	Ile 255	Ser
Arg	Ser	Ala	Thr 260	Ile	Ala	Ile	Ala	Tyr 265	Ile		Lys	Arg	Met 270	Asp	Met
Ser	Leu	Asp 275		Ala	Tyr	Arg	Phe 280	Val		Glu	Lys	Arg 285		Thr	Ile
Ser	Pro	Asn		Asn	Phe	Leu 295	Gly		Leu	Leu	Asp		Glu	Lys	Lys
Ile 305	Lys	Asn	Gln	Thr	Gly 310			Gly	Pro	Lys 315		Lys	Leu	Lys	Leu 320
Leu	His	Leu	Glu	Lys 325	Pro	Asn	Glu	Pro	Val 330	Pro	Ala	Val	Ser	Glu 335	Gly
Gly	Gln	Lys	Ser	Glu	Thr	Pro	Leu	Ser 345			Cys	Ala	Asp 350	Ser	Ala
Thr	Ser	Glu 355	Ala	Ala	Gly	Gln	Arg 360		Val	His	Pro	Ala 365	Ser	Val	Pro
	370				Gln	375					380	Ser	Pro		
385					Leu 390					395				_	400
				405	Ser				41.0					415	_
			420		Ala			425					430		-
		435			Lys		440					445			-
	450				Pro	455					460				
465					Gly 470					475			Ser	Cys	Arg 480
				485	Thr				490		-		Arg	495	
			500		Pro			505					510		
		515			Arg		520					525			
	530				Ala	535					540				
545					Ile 550					555					560
				565	Phe				570					575	
			580		Gly			585					590		
		595			Gly		600					605			
	610				Ala	615					620				
625					Phe 630					635					640
				645	Glu				650					655	
GTÅ	Ser	GTU	660	ser	Phe	ser	GTA	Ser 665	Met	Glu	Ile		Glu 670	Val	Ser 672

<210> 1260 <211> 260 <212>Amino acid <213> Homo sapiens

<400> 1260 Ala Ser Ser Ser Lys Arg Val Ser Arg Gln Lys Met Leu Gln Leu Trp 10 Lys Leu Val Leu Leu Cys Gly Val Leu Thr Gly Thr Ser Glu Ser Leu 20 25 Leu Asp Asn Leu Gly Asn Asp Leu Ser Asn Val Val Asp Lys Leu Glu 40 45 Pro Val Leu His Glu Gly Leu Glu Thr Val Asp Asn Thr Leu Lys Gly Ile Leu Glu Lys Leu Lys Val Asp Leu Gly Val Leu Gln Lys Ser Ser 70 75 Ala Trp Gln Leu Ala Lys Gln Lys Ala Gln Glu Ala Glu Lys Leu Leu 85 90 Asn Asn Val Ile Ser Lys Leu Leu Pro Thr Asn Thr Asp Ile Phe Gly 100 105 Leu Lys Ile Ser Asn Ser Leu Ile Leu Asp Val Lys Ala Glu Pro Ile 120 Asp Asp Gly Lys Gly Leu Asn Leu Ser Phe Pro Val Thr Ala Asn Val 135 140 Thr Glu Ala Gly Pro Ile Ile Asp Gln Ile Ile Asn Leu Arg Ala Ser 150 155 160 Leu Asp Leu Leu Thr Ala Val Thr Ile Glu Thr Asp Pro Gln Thr His 170 175 His Pro Val Ala Gly Leu Gly Glu Cys Ala Arg Asp Pro Thr Ser Ile 185 Ser Leu Cys Leu Leu Asp Lys His Ser Gln Ile Ile Asn Lys Phe Val 200 Asn Ser Val Ile Asn Thr Leu Lys Ser Thr Val Ser Ser Leu Leu Gln 215 220 Lys Glu Ile Cys Pro Leu Ile Arg Ile Phe Ile His Ser Leu Asp Val 230 235 Asn Val Ile Gln Gln Val Val Asp Asn Pro Gln His Lys Thr Gln Leu 250 Gln Thr Leu Ile 260

<210> 1261 <211> 278 <212>Amino acid <213> Homo sapiens

40 Arg Gly Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser 55 Ala Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg 70 Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly 90 Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr 105 Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys 120 Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys 135 Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu 150 155 Cys Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe 165 170 Ser Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp 185 Tyr Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu 200 Ala Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile 215 Asn Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly 230 235 Ala Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr 250 Pro Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile 260 265 Ile Glu Glu Leu Pro Lys 275 278

<210> 1262 <211> 362 <212>Amino acid <213> Homo sapiens

<400> 1262 Met His Ser Ala Met Leu Gly Thr Arg Val Asn Leu Ser Val Ser Asp 10 Phe Trp Arg Val Met Met Arg Val Cys Trp Leu Val Arg Gln Asp Ser Arg His Gln Arg Ile Arg Leu Pro His Leu Glu Ala Val Val Ile Gly 40 Arg Gly Pro Glu Thr Lys Ile Thr Asp Lys Lys Cys Ser Arg Gln Gln 55 Val Gln Leu Lys Ala Glu Cys Asn Lys Gly Tyr Val Lys Val Lys Gln 70 Val Gly Val Asn Pro Thr Ser Ile Asp Ser Val Val Ile Gly Lys Asp 90 Gln Glu Val Lys Leu Gln Pro Gly Gln Val Leu His Met Val Asn Glu 105 Leu Tyr Pro Tyr Ile Val Glu Phe Glu Glu Glu Ala Lys Asn Pro Gly 120 125 Leu Glu Thr His Arg Lys Arg Lys Arg Ser Gly Asn Ser Asp Ser Ile 135 140 -Glu Arg Asp Ala Ala Glu Glu Ala Glu Ala Gly Thr Gly Leu Glu Pro 150 155 Gly Ser Asn Ser Gly Gln Cys Ser Val Pro Leu Lys Lys Gly Lys Asp

```
170
Ala Pro Ile Lys Lys Glu Ser Leu Gly His Trp Ser Gln Gly Leu Lys
                  185
Ile Ser Met Gln Asp Pro Lys Met Gln Val Tyr Lys Asp Glu Gln Val
                       200
Val Val Ile Lys Asp Lys Tyr Pro Lys Ala Arg Tyr His Trp Leu Val
                   215
                                     220
Leu Pro Trp Thr Ser Ile Ser Ser Leu Lys Ala Val Ala Arg Glu His
          230 235
Leu Glu Leu Leu Lys His Met His Thr Val Gly Glu Lys Val Ile Val
             245 250
Asp Phe Ala Gly Ser Ser Lys Leu Arg Phe Arg Leu Gly Tyr His Ala
          260 265
Ile Pro Ser Met Ser His Val His Leu His Val Ile Ser Gln Asp Phe
                        280
Asp Ser Pro Cys Leu Lys Asn Lys Lys His Trp Asn Ser Phe Asn Thr
                    295
Glu Tyr Phe Leu Glu Ser Gln Ala Val Ile Glu Met Val Gln Glu Ala
                 310
                                  315
Gly Arg Val Thr Val Arg Asp Gly Met Pro Glu Leu Leu Lys Leu Pro
                              330
Leu Arg Cys His Glu Cys Gln Gln Leu Leu Pro Ser Ile Pro Gln Leu
                          345
Lys Glu His Leu Arg Lys His Trp Thr Gln
                        360 362
```

<210> 1263 <211> 618 <212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature

165

<222> (1) ... (618)

<223> X = any amino acid or stop code

<400> 1263 Asp Met Ser Asp Thr Ser Glu Ser Gly Ala Gly Leu Thr Arg Phe Gln 10 Ala Glu Ala Ser Glu Lys Asp Ser Ser Ser Met Met Gln Thr Leu Leu 20 25 Thr Val Thr Gln Asn Val Glu Val Pro Glu Thr Pro Lys Ala Ser Lys 40 Ala Leu Glu Val Ser Glu Asp Val Lys Val Ser Lys Ala Ser Gly Val 55 Ser Lys Ala Thr Glu Val Ser Lys Thr Pro Glu Ala Arg Glu Ala Pro 75 Ala Thr Gln Ala Ser Ser Thr Thr Gln Leu Thr Asp Thr Gln Val Leu 85 an. Ala Ala Glu Asn Lys Ser Leu Ala Ala Asp Thr Lys Lys Gln Asn Ala 105 Asp Pro Gln Ala Val Thr Met Pro Ala Thr Glu Thr Lys Lys Val Ser 120 His Val Ala Asp Thr Lys Val Asn Thr Lys Ala Gln Glu Thr Glu Ala 135 140 Ala Pro Ser Gln Ala Pro Ala Asp Glu Pro Glu Pro Glu Ser Ala Ala 1.50 155 Ala Gln Ser Gln Glu Asn Gln Asp Thr Arg Pro Lys Val Lys Ala Lys

```
Lys Ala Arg Lys Val Lys His Leu Asp Gly Glu Glu Asp Gly Ser Ser
           180
Asp Gln Ser'Gln Ala Ser Gly Thr Thr Gly Gly Arg Arg Val Ser Lys
                         200
Ala Leu Met Ala Ser Met Ala Arg Arg Ala Ser Arg Gly Pro Ile Ala
                     215
Phe Trp Ala Arg Arg Ala Ser Arg Thr Arg Leu Ala Cys Phe Gly Pro
Gly Glu Pro Leu Leu Ser Pro Trp Arg Ser Pro Lys Ala Arg Arg Gln
                                250
Arg Gly Phe Ala Val Arg Val Ala Lys Phe Gln Ser Ser Gln Glu Pro
                             265
Glu Ala Pro Pro Pro Trp Asp Val Ala Leu Leu Gln Gly Arg Ala Asn
                        280
Asp Leu Val Lys Tyr Leu Leu Ala Lys Asp Gln Thr Lys Ile Pro Ile
                    295
                               300
Lys Arg Ser Asp Met Leu Lys Asp Ile Ile Lys Glu Tyr Thr Asp Val
                 310
                                   315
Tyr Pro Glu Ile Ile Glu Arg Ala Gly Tyr Ser Leu Glu Lys Val Phe
             325
                               330
Gly Ile Gln Leu Lys Glu Ile Asp Lys Asn Asp His Leu Tyr Ile Leu
          340
                            345 350
Leu Ser Thr Leu Glu Pro Thr Asp Ala Gly Ile Leu Gly Thr Thr Lys
      355 360
Asp Ser Pro Lys Leu Gly Leu Leu Met Val Leu Leu Ser Ile Ile Phe
           375
                                       380
Met Asn Gly Asn Arg Ser Ser Glu Ala Val Ile Trp Glu Val Leu Arg
                 390
                                   395
Arg Ser Leu Gly Leu Arg Leu Gly Ile His His Ser Leu Leu Gly Asp
             405
                                410
Val Lys Lys Leu Ile Thr Asp Glu Val Val Lys Gln Lys Tyr Leu Asp
          420
                            425
                                               430
Tyr Ala Arg Val Pro His Ser Asn Ser Pro Glu Tyr Glu Phe Phe Trp
                        440
Gly Leu Arg Ser Tyr Tyr Glu Asp Gln Gln Arg Xaa Lys Ser Phe Lys
                     455
                                       460
Phe Ala Cys Lys Val Gln Lys Lys Asp Pro Lys Glu Trp Ala Ala Gln
                                   475
Ser Pro Pro Gly Lys Ala Arg Glu Arg Met Glu Ala Asp Leu Lys Ala
                               490
Ala Ser Xaa Gly Ser Pro Trp Lys Pro Arg Leu Arg Ala Glu Ile Lys
                            505
Ala Arg Met Gly Ile Gly Leu Gly Ser Glu Asn Ala Ala Gly Pro Cys
                        520
Asn Trp Asp Glu Ala Asp Ile Gly Pro Trp Ala Lys Ala Arg Ile Gln
                     535
                                       540
Ala Gly Ala Glu Ala Lys Ala Lys Ala Gln Glu Ser Gly Ser Ala Ser
                 550
                        555
Thr Gly Ala Ser Thr Ser Thr Asn Asn Ser Ala Ser Ala Ser Ala Ser
             565
                               570
Thr Ser Gly Gly Phe Ser Ala Gly Ala Ser Leu Thr Ala Thr Leu Thr
          580
                            585 590
Phe Gly Leu Phe Ala Gly Leu Gly Gly Ala Gly Ala Ser Thr Ser Gly
             600
Ser Ser Gly Ala Cys Gly Phe Ser Tyr Lys
   610
                     615 618
```

<210> 1264 <211> 464 <212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(464) <223> X = any amino acid or stop code

<400> 1264 Ala Arg Pro Pro Val Cys Thr Gly Ser Thr Met Ser Leu Thr Val Val 10 Ser Met Ala Cys Val Gly Phe Phe Leu Leu Gln Gly Ala Trp Pro Leu 25 Met Gly Gly Gln Asp Lys Pro Phe Leu Ser Ala Arg Pro Ser Thr Val 40 Val Pro Arg Gly Gly His Val Ala Leu Gln Cys His Tyr Arg Arg Gly 55 Phe Asn Asn Phe Met Leu Tyr Lys Glu Asp Arg Ser His Val Pro Ile 70 75 Phe His Gly Arg Ile Phe Gln Glu Ser Phe Ile Met Gly Pro Val Thr 85 90 Pro Ala His Ala Gly Thr Tyr Arg Cys Arg Gly Ser Arg Pro His Ser 105 Leu Thr Gly Trp Ser Ala Pro Ser Asn Pro Leu Val Ile Met Val Thr 115 120 Gly Asn His Arg Lys Pro Ser Leu Leu Ala His Pro Gly Pro Leu Leu 135 140 Lys Ser Gly Glu Thr Val Ile Leu Gln Cys Trp Ser Asp Ile Met Phe 150 155 Glu His Phe Phe Leu His Lys Glu Gly Ile Ser Lys Asp Pro Ser Arg 165 170 Leu Val Gly Gln Ile His Asp Gly Val Ser Lys Ala Asn Phe Ser Ile 185 Gly Pro Met Met Leu Ala Leu Ala Gly Thr Tyr Arg Cys Tyr Gly Ser 200 Val Thr His Thr Pro Tyr Gln Leu Ser Ala Pro Ser Asp Pro Leu Asp 215 220 Ile Val Val Thr Gly Pro Tyr Glu Lys Pro Ser Leu Ser Ala Gln Pro 230 235 Gly Pro Lys Val Gln Ala Gly Glu Ser Val Thr Leu Ser Cys Ser Ser 250 Arg Ser Ser Tyr Asp Met Tyr His Leu Ser Arg Glu Gly Gly Ala His 265 Glu Arg Arg Leu Pro Ala Val Arg Lys Val Asn Arg Thr Phe Gln Ala 280 Asp Phe Pro Leu Gly Pro Ala Thr His Gly Gly Thr Tyr Arg Cys Phe 295 300 Gly Ser Phe Arg His Ser Pro Tyr Glu Trp Ser Asp Pro Ser Asp Pro 310 315 Leu Leu Val Ser Val Thr Gly Asn Pro Ser Ser Ser Trp Pro Ser Pro 325 330 Thr Glu Pro Ser Ser Lys Ser Gly Asn Leu Arg His Leu His Ile Leu 340 345 350 Ile Gly Thr Ser Val Val Lys Ile Pro Phe Thr Ile Leu Leu Phe Phe 360 365 Leu Leu His Arg Trp Cys Ser Asn Lys Lys Asn Ala Ala Val Met Asp 375 380 Gln Glu Pro Ala Gly Asn Arg Val Asn Ser Glu Asp Ser Asp Glu Gln 390 395 Asp His Gln Glu Val Ser Tyr Pro Xaa Leu Glu His Cys Val Phe Thr 405 410 Gln Arg Lys Ile Thr Arg Pro Ser Gln Arg Pro Lys Thr Pro Pro Thr 420 425 Asp Thr Ser Met Tyr Ile Glu Leu Pro Asn Ala Glu Pro Arg Ser Lys

440 Val. Val Phe Cys Pro Arg Ala Pro Gln Ser Gly Leu Glu Gly Ile Phe 455 460

<210> 1265 <211> 1879 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1879)

<223> X = any amino acid or stop code

<400> 1265

Leu His Asn Leu Arg Glu Arg Tyr Phe Ser Gly Leu Ile Tyr Thr Tyr 10 Ser Gly Leu Phe Cys Val Val Val Asn Pro Tyr Lys His Leu Pro Ile 25 Tyr Ser Glu Lys Ile Val Asp Met Tyr Lys Gly Lys Lys Arg His Glu 40 Met Pro Pro His Ile Tyr Ala Ile Ala Asp Thr Ala Tyr Arg Ser Met 55 Leu Gln Asp Arg Glu Asp Gln Ser Ile Leu Cys Thr Gly Glu Ser Gly 70 75 Ala Gly Lys Thr Glu Asn Thr Lys Lys Val Ile Gln Tyr Leu Ala Val 85 90 Val Ala Ser Ser His Lys Gly Lys Lys Asp Thr Ser Ile Thr Gly Glu 100 105 Leu Glu Lys Gln Leu Leu Gln Ala Asn Pro Ile Leu Glu Ala Phe Gly 115 120 Asn Ala Lys Thr Val Lys Asn Asp Asn Ser Ser Arg Phe Gly Lys Phe 135 140 Ile Arg Ile Asn Phe Asp Val Thr Gly Tyr Ile Val Gly Ala Asn Ile 150 155 Glu Thr Tyr Leu Leu Glu Lys Ser Arg Ala Ile Arg Gln Ala Arg Asp 170 Glu Arg Thr Phe His Ile Phe Tyr Tyr Met Ile Ala Gly Ala Lys Glu 185 Lys Met Arg Ser Asp Leu Leu Leu Glu Gly Phe Asn Asn Tyr Thr Phe 200 Leu Ser Asn Gly Phe Val Pro Ile Pro Ala Ala Gln Asp Asp Glu Met 215 220 Phe Gln Glu Thr Val Glu Ala Met Ala Ile Met Gly Phe Ser Glu Glu 230 235 Glu Gln Leu Ser Ile Leu Lys Val Val Ser Ser Val Leu Gln Leu Gly 245 250 Asn Ile Val Phe Lys Lys Glu Arg Asn Thr Asp Gln Ala Ser Met Pro 260 265 270 Asp Asn Thr Ala Ala Gln Lys Val Cys His Leu Met Gly Ile Asn Val 280 285 Thr Asp Phe Thr Arg Ser Ile Leu Thr Pro Arg Ile Lys Val Gly Arg 295 300 Asp Val Val Gln Lys Ala Gln Thr Lys Glu Gln Ala Asp Phe Ala Val 310 315 Glu Ala Leu Ala Lys Ala Thr Tyr Glu Arg Leu Phe Arg Trp Ile Leu 330

```
Thr Arg Val Asn Lys Ala Leu Asp Lys Thr His Arg Gln Gly Ala Ser
                               345
Phe Leu Gly Ile Leu Asp Ile Ala Gly Phe Glu Ile Phe Glu Val Asn
       355
                          360
Ser Phe Glu Gln Leu Cys Ile Asn Tyr Thr Asn Glu Lys Leu Gln Gln
                      375
Leu Phe Asn His Thr Met Phe Ile Leu Glu Glu Glu Glu Tyr Gln Arg
                   390
                                       395
Glu Gly Ile Glu Trp Asn Phe Ile Asp Phe Gly Leu Asp Leu Gln Pro
                                   410
Cys Ile Glu Leu Ile Glu Arg Pro Asn Asn Pro Pro Gly Val Leu Ala
                               425
Leu Leu Asp Glu Glu Cys Trp Phe Pro Lys Ala Thr Asp Lys Ser Phe
                           440
Val Glu Lys Leu Cys Thr Glu Gln Gly Ser His Pro Lys Phe Gln Lys
                       455
                                           460
Pro Lys Gln Leu Lys Asp Lys Thr Glu Phe Ser Ile Ile His Tyr Ala
                   470
                                       475
Gly Lys Val Asp Tyr Asn Ala Ser Ala Trp Leu Thr Lys Asn Met Asp
               485
                                   490
Pro Leu Asn Asp Asn Val Thr Ser Leu Leu Asn Ala Ser Ser Asp Lvs
                               505
Phe Val Ala Asp Leu Trp Lys Asp Val Asp Arg Ile Val Gly Leu Asp
                           520
Gln Met Ala Lys Met Thr Glu Ser Ser Leu Pro Ser Ala Ser Lys Thr
                       535
Lys Lys Gly Met Phe Arg Thr Val Gly Gln Leu Tyr Lys Glu Gln Leu
Gly Lys Leu Met Thr Thr Leu Arg Asn Thr Thr Pro Asn Phe Val Arg
               565
                                   570
                                                      575
Cys Ile Ile Pro Asn His Glu Lys Arg Ser Gly Lys Leu Asp Ala Phe
                               585
Leu Val Leu Glu Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile Arg
Ile Cys Arg Gln Gly Phe Pro Asn Arg Ile Val Phe Gln Glu Phe Arg
                       615
                                          620
Gln Arg Tyr Glu Ile Leu Ala Ala Asn Ala Ile Pro Lys Gly Phe Met
                   630
                                       635
Asp Gly Lys Gln Ala Cys Ile Leu Met Ile Lys Ala Leu Glu Leu Asp
               645
                                   650
Pro Asn Leu Tyr Arg Ile Gly Gln Ser Lys Ile Phe Phe Arg Thr Gly
                               665
Val Leu Ala His Leu Glu Glu Glu Arg Asp Leu Lys Ile Thr Asp Val
                          680
Ile Met Ala Phe Gln Ala Met Cys Arg Gly Tyr Leu Ala Arg Lys Ala
                       695
                                          700
Phe Ala Lys Arg Gln Gln Gln Leu Thr Ala Met Lys Val Ile Gln Arg
                   710
                                      715
Asn Cys Ala Ala Tyr Ile Lys Leu Arg Asn Trp Gln Trp Cys Arg Leu
               725
                                  730
Phe Thr Lys Val Kaa Pro Leu Leu Gln Val Thr Arg Gln Glu Kaa Glu
           740
                              745
Met Gln Ala Lys Glu Asp Glu Leu Gln Lys Thr Lys Glu Arg Gln Gln
                          760
Lys Ala Glu Asn Glu Leu Lys Glu Leu Glu Gln Lys His Ser Gln Leu
                      775
                                          780
Thr Glu Glu Lys Asn Leu Leu Gln Glu Gln Leu Gln Ala Glu Thr Glu
                                       795
Leu Tyr Ala Glu Ala Glu Glu Met Arg Val Arg Leu Ala Ala Lys Lys
               805
                                  810
Gln Glu Leu Glu Glu Ile Leu His Glu Met Glu Ala Arg Leu Glu Glu
                       825
Glu Glu Asp Arg Gly Gln Gln Leu Gln Ala Glu Arg Lys Lys Met Ala
                           840
```

```
Gln Gln Met Leu Asp Leu Glu Glu Glu Glu Glu Glu Glu Ala Ala
        855
 Arg Gln Lys Leu Gln Leu Glu Lys Val Thr Ala Glu Ala Lys Ile Lys
               870
                               875
Lys Leu Glu Asp Glu Ile Leu Val Met Asp Asp Gln Asn Asn Lys Leu
            885
                            890
Ser Lys Glu Arg Lys Leu Leu Glu Glu Arg Ile Ser Asp Leu Thr Thr
          900
                         905
Asn Leu Ala Glu Glu Glu Lys Ala Lys Asn Leu Thr Lys Leu Lys
                      920
Asn Lys His Glu Ser Met Ile Ser Glu Leu Glu Val Arg Leu Lys Lys
                   935
                                   940
Glu Glu Lys Ser Arg Gln Glu Leu Glu Lys Leu Lys Arg Lys Leu Glu
               950
                               955
Gly Asp Ala Ser Asp Phe His Glu Gln Ile Ala Asp Leu Gln Ala Gln
            965
                            970
Ile Ala Glu Leu Lys Met Gln Leu Ala Lys Lys Glu Glu Glu Leu Gln
                         985
Ala Ala Leu Ala Arg Leu Asp Asp Glu Ile Ala Gln Lys Asn Asn Ala
                     1000
                                    1005
Leu Lys Lys Ile Arg Glu Leu Glu Gly His Ile Ser Asp Leu Gln Glu
  1010 1015
                        1020
Asp Leu Asp Ser Glu Arg Ala Ala Arg Asn Lys Ala Glu Lys Gln Lys
              1030 1035
Arg Asp Leu Gly Glu Glu Leu Glu Ala Leu Lys Thr Glu Leu Glu Asp
           1045
                           1050 1055
Thr Leu Asp Ser Thr Ala Thr Gln Gln Glu Leu Arg Ala Lys Arg Glu
                       1065 1070
Gln Glu Val Thr Val Leu Lys Arg Ala Leu Asn Glu Glu Thr Arg Ser
                    1080 1085
His Glu Ala Gln Val Gln Glu Met Arg Gln Lys His Ala Gln Ala Val
                  1095 1100
Gln Ser Leu Thr Glu Gln Leu Glu Gln Xaa Lys Arg Ala Lys Ala Asn
              1110 1115
Leu Asp Lys Asn Lys Gln Thr Leu Glu Lys Glu Asn Thr Asp Leu Ala
           1125
                          1130 1135
Gly Glu Leu Arg Val Leu Gly Gln Ala Lys Gln Glu Val Glu His Arg
                        1145
Met Lys Lys Leu Gln Ala Gln Val Gln Glu Leu Gln Ser Lys Cys Ser
                    1160 1165
Asp Gly Glu Arg Ala Arg Ala Glu Leu Asn Asp Lys Val His Lys Leu
  1170 1175 1180
Gln Asn Glu Val Glu Ser Val Thr Gly Met Leu Asn Glu Ala Glu Gly
              1190 1195
Lys Ala Ile Lys Leu Ala Lys Asp Val Ala Ser Leu Ser Ser Gln Leu
           1205 1210 1215
Gln Asp Thr Gln Glu Leu Leu Gln Glu Glu Ser Arg Gln Lys Leu Asn
        1220 1225 1230
Val Ser Thr Ser Leu Arg Gln Leu Glu Glu Glu Arg Asn Ser Leu Gln
     1235 1240 1245
Asp Gln Leu Asp Glu Glu Met Glu Ala Lys Gln Asn Leu Glu Arg His
                 1255 1260
Ile Ser Thr Leu Asn Ile Gln Leu Ser Asp Ser Lys Lys Leu Gln
      1270
                              1275 1280
Asp Phe Ala Ser Thr Val Glu Ala Leu Glu Glu Gly Lys Lys Arg Phe
         1285
                          1290
Gln Lys Glu Ile Glu Asn Leu Thr Gln Gln Tyr Glu Glu Lys Ala Ala
       1300 1305 1310
Ala Tyr Asp Lys Leu Glu Lys Thr Lys Asn Arg Leu Gln Glu Leu
     1315 1320 1325
Asp Asp Leu Val Val Asp Leu Asp Asn Gln Arg Gln Leu Val Ser Asn
 1330 1335 1340
Leu Glu Lys Lys Gln Arg Lys Phe Asp Gln Leu Leu Ala Glu Glu Lys
              1350
                             1355
```

Asn Ile Ser Ser Lys Tyr Ala Asp Glu Arg Asp Arg Val Glu Ala Glu 1370 Ala Arg Glu Lys Glu Thr Lys Ala Leu Ser Leu Ala Arg Ala Leu Glu 1385 1390 1380 Glu Ala Leu Glu Ala Lys Glu Glu Leu Glu Arg Thr Asn Lys Met Leu 1395 1400 1405 Lys Ala Glu Met Gly Arg Pro Gly Ser Ala Ser Lys Asp Asp Val Gly 1415 1420 Gln Glu Leu Ser His Asp Leu Glu Lys Ser Lys Arg Ala Leu Gly Asp 1430 1435 Pro Arg Leu Glu Glu Met Lys Thr Gln Leu Glu Glu Leu Gly Arg Thr 1445 1450 1455 Glu Leu Ala Ser Pro Arg Arg Asp Ala Lys Leu Arg Leu Glu Val Asn 1460 1465 1470 Met Gln Ala Pro Ser Arg Ala Ser Phe Glu Arg Asp Leu Gln Ala Arg 1475 1480 Thr Glu Gln Asn Glu Glu Ser Arg Arg His Leu Gln Arg Gln Leu His 1495 1500 Glu Tyr Glu Thr Glu Leu Glu Asp Glu Arg Lys Gln Arg Ala Leu Ala 1510 1515 Ala Ala Ala Lys Ile Lys Leu Gly Trp Asp Pro Val Arg Thr Leu Asp 1530 1535 1525 Leu Kaa Ala Asp Ser Ala Ile Lys Gly Arg Gly Gly Lys Ala Ile Lys 1540 1545 1550 Gln Leu Arg Lys Leu Gln Ala Gln Met Lys Asp Phe Gln Arg Glu Leu 1555 1560 1565 Glu Asp Ala Arg Ala Ser Arg Asp Glu Ile Phe Ala Thr Ala Lys Glu 1570 1575 1580 Asn Glu Lys Lys Ala Lys Ser Leu Glu Ala Asp Leu Met Gln Leu Gln 1590 1595 Glu Asp Leu Ala Ala Glu Glu Gly Arg Lys Gln Ala Asp Leu Glu 1610 1615 1605 Lys Glu Glu Leu Ala Glu Glu Leu Ala Ser Ser Leu Ser Gly Arg Asn 1620 1625 1630 Ala Leu Gln Asp Glu Lys Arg Arg Leu Glu Ala Arg Ile Ala Gln Leu 1635 1640 1645 Glu Glu Glu Leu Glu Glu Glu Gln Gly Asn Met Glu Ala Met Ser Asp 1650 1655 1660 Arg Val Arg Lys Ala Thr Gln Gln Ala Glu Gln Leu Ser Asn Glu Leu 1670 1675 Ala Thr Glu Arg Ser Thr Ala Gln Lys Asn Glu Ser Ala Arg Gln Gln 1685 1690 Leu Glu Arg Gln Asn Lys Glu Leu Arg Ser Lys Leu His Glu Met Glu 1700 1705 1710 Gly Ala Val Lys Ser Lys Phe Lys Ser Thr Ile Ala Ala Leu Glu Ala 1715 1720 1725 Lys Ile Ala Gln Leu Glu Glu Gln Val Glu Gln Glu Ala Arg Glu Lys 1730 1735 1740 Gln Ala Ala Thr Lys Ser Leu Lys Gln Lys Asp Lys Lys Leu Lys Glu 1745 1750 1755 Ile Leu Leu Gln Val Glu Asp Glu Arg Lys Met Ala Glu Gln Tyr Lys 1765 1770 1775 Glu Gln Ala Glu Lys Gly Asn Ala Arg Val Lys Gln Leu Lys Arg Gln 1780 1785 1790 Leu Glu Glu Ala Glu Glu Glu Ser Gln Arg Ile Asn Ala Asn Arg Arg 1795 1800 1805 Lys Leu Gln Arg Glu Leu Asp Glu Ala Thr Glu Ser Asn Glu Ala Met 1810 1815 1820 Gly Arg Glu Val Asn Ala Leu Lys Ser Lys Leu Arg Arg Gly Asn Glu 1825 1830 1835 1840 Thr Ser Phe Val Pro Ser Arg Arg Ser Gly Gly Arg Arg Val Ile Glu 1845 1850 1855 Asn Ala Asp Gly Ser Glu Glu Glu Thr Asp Thr Arg Asp Ala Asp Phe 1865

Asn Gly Thr Lys Ala Ser Glu 1875 1879

> <210> 1266 <211> 257 <212>Amino acid <213> Homo sapiens

<400> 1266

Lys Leu His Phe Ala Lys Ser Leu Asn Ser Glu Leu Ser Cys Ser Thr 10 Arg Glu Ala Met Gln Asp Glu Asp Gly Tyr Ile Thr Leu Asn Ile Lys 20 25 Thr Arg Lys Pro Ala Leu Val Ser Val Gly Pro Ala Ser Ser Ser Tro 35 40 Trp Arg Val Met Ala Leu Ile Leu Leu Ile Leu Cys Val Gly Met Val 55 Val Gly Leu Val Ala Leu Gly Ile Trp Ser Val Met Gln Arg Asn Tyr 70 75 Leu Gln Asp Glu Asn Glu Asn Arg Thr Gly Thr Leu Gln Gln Leu Ala 85 90 Lys Arg Phe Cys Gln Tyr Val Val Lys Gln Ser Glu Leu Lys Gly Thr 100 105 Phe Lys Gly His Lys Cys Ser Pro Cys Asp Thr Asn Trp Arg Tyr Tyr 120 115 Gly Asp Ser Cys Tyr Gly Phe Phe Arg His Asn Leu Thr Trp Glu Glu 135 140 Ser Lys Gln Tyr Cys Thr Asp Met Asn Ala Thr Leu Leu Lys Ile Asp 150 155 Asn Arg Asn Ile Val Glu Tyr Ile Lys Ala Arg Thr His Leu Ile Arg 170 Trp Val Gly Leu Ser Arg Gln Lys Ser Asn Glu Val Trp Lys Trp Glu 185 Asp Gly Ser Val Ile Ser Glu Asn Met Phe Glu Phe Leu Glu Asp Gly 200 205 Lys Gly Asn Met Asn Cys Ala Tyr Phe His Asn Gly Lys Met His Pro 215 220 Thr Phe Cys Glu Asn Lys His Tyr Leu Met Cys Glu Arg Lys Ala Gly 235 230 . His Asp Pro Arg Trp Thr Gln Leu Pro Leu Met Pro Lys Arg Trp Thr 245 250

Gly 257

> <210> 1267 <211> 208 <212>Amino acid <213> Homo sapiens

<400> 1267

Asn Gln Gly Leu Arg Asp Val Gly Leu Cys Arg Thr Cys Leu Val Asn 1 10 15
Lys Ile Phe Ala Ser Ser Ile Leu Gly Lys Ser His His His Ser Leu 20 25 30

775

Val Ser Ile Asn Gln Gly His Asn Ala Pro Trp Lys Ala Ala Gly Ser Leu Pro Leu Lys Ala Ala Tyr Cys Gln Gly Phe Ser Pro Cys Asp Cys 55 Leu Lys Tyr Gly Ser Trp Asp Glu Lys Asp Leu Met Val Pro Gln Pro 70 Asp Thr His Lys Gly Ser Val Leu Arg Trp Ile Ser Lys Arg Gly Lys 90 Pro Leu Ala Val Glu Met Glu Glu Gly His Cys Leu Cys Leu Pro Leu 100 105 Gly Thr Glu Cys Leu Gly Val Lys Pro Ile Val His Leu Phe Asn Ser 120 Glu Met Gly Glu Lys Arg Pro Val Ala Gly Ala Arg His Val Gly Ser 135 140 Ser Ala Ala Leu Leu Phe Phe Thr Pro Leu Arg Cys Leu Gly Glu Glu 150 155 Lys His Lys Ser Gly Leu Arg Ala Arg Pro Gly Ile Val Pro Ser Leu 165 . 170 Glu Leu Asn Tyr Asp Ile Asp Ser Phe Ala His Met Phe Phe Ser Val 180 185 190 Asp Leu Leu Leu Ile Ile Thr Leu Leu Ser Tyr Tyr Ile Pro Phe Cys 200 205

<210> 1268 <211> 158 <212>Amino acid <213> Homo sapiens

<400> 1268 Met Trp Trp Arg Leu Ala Pro Thr Gln Ala Ile Trp Arg Ala Ala Gly 5 10 Cys Cys Met Arg Phe Ser Arg Arg Ser Thr Cys Cys Cys Leu Ala 20 25 Ser Cys Ile Phe Leu Leu Tyr Lys Ile Val Arg Gly Asp Gln Pro Ala 40 Ala Lys Arg Arg Gln Arg Arg Arg Ala Ala Pro Ser Ala Pro Pro 55 Gln Ala Ala Arg Leu His Pro Pro Pro Lys Leu Arg Arg Phe Asp Gly 70 Val Gln Asp Pro Ala Pro Tyr Ser Trp Ala Ile Asn Gly Lys Val Phe 85 90 Asp Val Thr Gln Arg Pro Ala Asn Phe Leu Arg Gly Pro Arg Gly Pro 100 105 Glu Thr Leu Ser Asp Trp Glu Ser Gln Phe Thr Phe Lys Tyr His His 120 125 Val Gly Lys Leu Leu Lys Glu Gly Glu Glu Pro Thr Val Tyr Ser Asp 130 135 Glu Glu Glu Pro Lys Asp Glu Ser Ala Arg Lys Asn Asp * 150 155 157

<210> 1269 <211> 178

<212>Amino acid

<213> Homo sapiens

<400> 1269 Gly Pro Arg Met Ala Lys Phe Leu Ser Gln Asp Gln Ile Asn Glu Tyr 5 10 Lys Glu Cys Phe Ser Leu Tyr Asp Lys Gln Gln Arg Gly Lys Ile Lys Ala Thr Asp Leu Met Val Ala Met Arg Cys Leu Gly Ala Ser Pro Thr 35 40 Pro Gly Glu Val Gln Arg His Leu Gln Thr His Gly Ile Asp Gly Asn 55 Gly Glu Leu Asp Phe Ser Thr Phe Leu Thr Ile Met His Met Gln Ile 70 75 Lys Gln Glu Asp Pro Lys Lys Glu Ile Leu Leu Ala Met Leu Met Val 85 90 Asp Lys Glu Lys Lys Gly Tyr Val Met Ala Ser Asp Leu Arg Ser Lys 100 105 110 Leu Thr Ser Leu Gly Glu Lys Leu Thr His Lys Glu Val Asp Asp Leu 125 120. Phe Arg Glu Ala Asp Ile Glu Pro Asn Gly Lys Val Lys Tyr Asp Glu 135 140 Phe Ile His Lys Ile Thr Leu Leu Pro Gly Arg Asp Leu Leu Lys Glu 150 155 Glu Asn Gly Arg Ala Ser Pro Gly Pro Glu Asn Leu Glu Gln Leu Ile 165 170 Phe Leu 178

<210> 1270 <211> 457 <212>Amino acid <213> Homo sapiens

<400> 1270 Ala Asp Pro His Thr Thr Val Ile Arg Phe Phe Pro Ala Ala Ser Ala 10 Thr Lys Arg Val Leu Pro Pro Val Leu Arg Val Ser Ser Pro Arg Thr 25 Trp Asn Pro Asn Val Pro Glu Ser Pro Arg Ile Pro Ala Pro Arg Leu 40 Pro Lys Arg Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu 55 Cys Ala Ala Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln 70 Ser Lys Ser Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala 85 90 His Gly Leu Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg 100 105 Thr Arg Ser Gln Leu Ser Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly 120 Ser Ala Cys Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro 135 140 Glu Ser Arg Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu 150 155 Lys Ala Gln Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln 170 Gln Gln Arg His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln 185

Ser Gln Phe Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala 200 Lys Pro Ala Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp 215 Pro Ala His Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln 230 235 Glu Leu Phe Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln 245 250 Pro Gln Gly Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp 265 Gly Gly Trp Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe 280 Asn Arg Pro Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly 295 300 Glu Phe Trp Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg 310 315 Asn Ser Arg Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu 330 Leu Leu Gln Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser 340 345 Leu Gln Leu Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val 360 365 Pro Pro Ser Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His 370 375 380 Asp Leu Arg Arg Asp Lys Asn Cys Ala Lys Ser Leu Ser Gly Gly Trp 390 395 Trp Phe Gly Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe Arg 405 410 Ser Ile Pro Gln Gln Arg Gln Lys Leu Lys Lys Gly Ile Phe Trp Lys 425 Thr Trp Arg Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Met Leu Ile 440 Gln Pro Met Ala Ala Glu Ala Ala Ser 455 457

<210> 1271 <211> 394

<400> 1271

130

<212>Amino acid <213> Homo sapiens

Ala Leu Asp Phe Gly Asp Ser Cys Gln Trp Pro Arg Pro Gln Asp Thr 10 Met Lys Gln Leu Pro Val Leu Glu Pro Gly Asp Lys Pro Arg Lys Ala 25 Thr Trp Tyr Thr Leu Thr Val Pro Gly Asp Ser Pro Cys Ala Arg Val 40 Gly His Ser Cys Ser Tyr Leu Pro Pro Val Gly Asn Ala Lys Arg Gly 55 Lys Val Phe Ile Val Gly Gly Ala Asn Pro Asn Arg Ser Phe Ser Asp 70 Val His Thr Met Asp Leu Gly Lys His Gln Trp Asp Leu Asp Thr Cys 90 Lys Gly Leu Leu Pro Arg Tyr Glu His Ala Ser Phe Ile Pro Ser Cys 100 105 Thr Pro Asp Arg Ile Trp Val Phe Gly Gly Ala Asn Gln Ser Gly Asn 120 125 Arg Asn Cys Leu Gln Val Leu Asn Pro Glu Thr Arg Thr Trp Thr Thr

140

Pro Glu Val Thr Ser Pro Pro Pro Ser Pro Arg Thr Phe His Thr Ser 150 155 Ser Ala Ala Ile Gly Asn Gln Leu Tyr Val Phe Gly Gly Gly Glu Arg 165 170 Gly Ala Gln Pro Val Gln Asp Thr Lys Leu His Val Phe Asp Ala Asn 185 190 Thr Leu Thr Trp Ser Gln Pro Glu Thr Leu Gly Asn Pro Pro Ser Pro 200 205 Arg His Gly His Val Met Val Ala Ala Gly Thr Lys Leu Phe Ile His 215 220 Gly Gly Leu Ala Gly Asp Arg Phe Tyr Asp Asp Leu His Cys Ile Asp 230 235 Ile Ser Asp Met Lys Trp Gln Lys Leu Asn Pro Thr Gly Ala Ala Pro 245 250 Ala Gly Cys Ala Ser His Thr Pro Ala Val Ala Met Gly Lys His Val 260 265 Tyr Ile Phe Gly Gly Met Thr Pro Ala Gly Ala Pro Gly Thr Gln Cys 280 Thr Gln Tyr His Thr Glu Glu Gln His Trp Asp Pro Cys Leu Lys Phe 295 300 Asp Thr Pro Ser Tyr Pro Pro Gly Thr Ile Gly Thr His Ser His Val 310 315 Val Ser Phe Pro Trp Pro Val Thr Cys Ala Ser Glu Lys Glu Asp Ser 330 Asn Ser Leu Thr Leu Asn His Glu Ala Glu Lys Glu Asp Ser Ala Asp 340 345 Lys Val Met Ser His Ser Gly Asp Ser His Glu Glu Ser Gln Thr Ala 360 365 Thr Leu Leu Cys Leu Val Phe Gly Gly Met Asn Thr Glu Gly Glu Ile 375 380 Tyr Asp Asp Cys Ile Val Thr Val Val Asp 390

<210> 1272 <211> 176 <212>Amino acid <213> Homo sapiens

<400> 1272 Gly Phe Ser Ile Gly Lys Ala Thr Asp Arg Met Asp Ala Phe Arg Lys Ala Lys Asn Arg Ala Val His His Leu His Tyr Ile Glu Arg Tyr Glu 20 25 Asp His Thr Ile Phe His Asp Ile Ser Leu Arg Phe Lys Arg Thr His 40 Ile Lys Met Lys Lys Gln Pro Lys Gly Tyr Gly Leu Arg Cys His Arg 55 Ala Ile Ile Thr Ile Cys Arg Leu Ile Gly Ile Lys Asp Met Tyr Ala 70 75 Lys Val Ser Gly Ser Ile Asn Met Leu Ser Leu Thr Gln Gly Leu Phe 90 Arg Gly Leu Ser Arg Gln Glu Thr His Gln Gln Leu Ala Asp Lys Lys 100 105 110 Gly Leu His Val Val Glu Ile Arg Glu Glu Cys Gly Pro Leu Pro Ile 120 125 Val Val Ala Ser Pro Arg Gly Pro Leu Arg Lys Asp Pro Glu Pro Glu 135 140 Asp Glu Val Pro Asp Val Lys Leu Asp Trp Glu Asp Val Lys Thr Ala 150 155

Gln Gly Met Lys Arg Ser Val Trp Ser Asn Leu Lys Arg Ala Ala Thr 165 170 175 176

<210> 1273 <211> 457 <212>Amino acid <213> Homo sapiens

<400> 1273 Ala Asp Pro His Thr Thr Val Ile Arg Phe Phe Pro Ala Ala Ser Ala 10 Thr Lys Arg Val Leu Pro Pro Val Leu Arg Val Ser Ser Pro Arg Thr 25 Trp Asn Pro Asn Val Pro Glu Ser Pro Arg Ile Pro Ala Pro Arg Leu 40 Pro Lys Arg Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu 55 Cys Ala Ala Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln 70 75 Ser Lys Ser Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala 85 90 His Gly Leu Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg 100 105 Thr Arg Ser Gln Leu Ser Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly 120 Ser Ala Cys Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro 135 140 Glu Ser Arg Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu 150 155 Lys Ala Gln Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln 165 170 Gln Gln Arg His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln 185 Ser Gln Phe Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala 200 Lys Pro Ala Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp 215 Pro Ala His Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln 230 235 Glu Leu Phe Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln 245 250 Pro Gln Gly Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp 260 265 Gly Gly Trp Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe 280 Asn Arg Pro Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly 295 300 Glu Phe Trp Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg 310 315 Asn Ser Arg Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu 325 330 Leu Leu Gln Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser 340 345 Leu Gln Leu Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val 360 Pro Pro Ser Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His 370 375

<210> 1274 <211> 359 <212>Amino acid <213> Homo sapiens

<400> 1274 Thr Leu Arg Ser Arg Pro Ala Gly Glu Ala Gly Tyr Leu Gly Trp Asp Pro Glu Gln Ala Gly Glu Gly Ser Ala Leu Ser Arg Pro Gly Ala Met 25 Ala Ala Leu Met Thr Pro Gly Thr Gly Ala Pro Pro Ala Pro Gly Asp Phe Ser Gly Glu Gly Ser Gln Gly Leu Pro Asp Pro Ser Pro Glu Pro 55 60 Lys Gln Leu Pro Glu Leu Ile Arg Met Lys Arg Asp Gly Gly Arg Leu 75 Ser Glu Ala Asp Ile Arg Gly Phe Val Ala Ala Val Val Asn Gly Ser 90 Ala Gln Gly Ala Gln Ile Gly Ala Trp Gly Gly Leu Gly Val Pro Asp 105 Pro Asp Trp Glu Val Ser Pro Arg Asp Phe Gly Ser Leu Gly Val Arg 120 Arg Cys Pro Thr Thr Ser Thr Gly Pro Arg Val Pro His Arg Cys Gly 135 Leu Pro Pro Ser Arg Val Pro Pro His Thr Arg Gly Met Leu Met Ala 150 155 Ile Arg Leu Arg Gly Met Asp Leu Glu Glu Thr Ser Val Leu Thr Gln 165 170 Ala Leu Ala Gln Ser Gly Gln Gln Leu Glu Trp Pro Glu Ala Trp Arg 185 Gln Gln Leu Val Asp Lys His Ser Thr Gly Gly Val Gly Asp Lys Val 200 Ser Leu Val Leu Ala Pro Ala Leu Ala Ala Cys Gly Cys Lys Val Ile 215 220 Asn His Leu Leu Ser Arg Arg Glu Pro Ile Pro His Met Gln Gln Pro 230 235 Val His Pro Gln Ala Ala Pro Asn Leu Lys Pro Gly Pro Lys Pro Pro 245 250 Arg Pro Tyr Gln Gly Phe Ser Pro Pro Cys Ser Pro Ala Gln Phe Ser 265 Pro Pro Arg Ser Pro Ala Gln Arg Leu Gly Pro Leu Trp Leu Gln Thr 280 Arg Pro Leu Gly Ala Gly Lys Arg Ser Thr Asp Gly Ile Gln Thr Pro 295 300 Phe Pro Leu Gly Pro Gln Thr Ala Pro Pro Arg Glu Glu Leu Arg Thr 310 315 Ser Leu Pro Leu Pro Gln Ala Leu Phe Pro Gln Gly Gln Val Pro Thr 325

PCT/US00/35017

```
WO 01/53455
Ser Ser Pro Thr Asp Thr Ser Gln Pro Arg Lys Leu Pro Phe His Ser
           340
                                345
Leu Thr Ser Trp Ala Pro Leu
        355
                       359
     <210> 1275
     <211> 146
     <212>Amino acid
     <213> Homo sapiens
    <220>
    <221> misc feature
    <222> (1) ... (146)
    <223> X = any amino acid or stop code
    <400> 1275
Arg Ala Leu Arg Glu Leu Arg Glu Arg Val Thr His Gly Leu Ala Glu
 1
                5
                                    10
                                                    15
Ala Gly Arg Asp Arg Glu Asp Val Ser Thr Glu Leu Tyr Arg Ala Leu
            20
                                25
                                                    30
Glu Ala Val Arg Leu Gln Asn Ser Glu Gly Ser Cys Glu Pro Cys Pro
                                                45
Thr Ser Trp Leu Pro Phe Gly Gly Ser Cys Tyr Tyr Phe Ser Val Pro
                        55
Lys Thr Thr Trp Ala Glu Ala Gln Gly His Cys Ala Asp Ala Ser Ala
 65
                     70
                                       75
His Leu Ala Ile Val Gly Gly Leu Gly Glu Gln Asp Phe Leu Ser Arg
                                    90
Asp Thr Ser Ala Leu Glu Tyr Trp Ile Gly Arg Arg Ala Val Gln His
                               105
Leu Arg Lys Val Gln Gly Tyr Ser Trp Val Asp Gly Val Pro Leu Ser
                           120
                                               125
Phe Arg Xaa Trp Glu Gly His Pro Gly Glu Thr Trp Gly Pro Gln Val
   130
                       135
Arg Leu
145 146
    <210> 1276
    <211> 187
```

<212>Amino acid <213> Homo sapiens

<400> 1276

Arg Trp Pro Arg Ser Trp Pro Pro Arg Ala Gly Ala Ala Arg Gly Ala 10 Ala Glu Ala Ala Met Val Gly Ala Leu Cys Gly Cys Trp Phe Arg Leu 25 Gly Gly Ala Arg Pro Leu Ile Pro Leu Gly Pro Thr Val Val Gln Thr 40 Ser Met Ser Arg Ser Gln Val Ala Leu Leu Gly Leu Ser Leu Leu Leu 55 60 Met Leu Leu Tyr Val Gly Leu Pro Gly Pro Pro Glu Gln Thr Ser 70 Cys Leu Trp Gly Asp Pro Asn Val Thr Val Leu Ala Gly Leu Thr Pro

90 Gly Asn Ser Pro Ile Phe Tyr Arg Glu Val Leu Pro Leu Asn Gln Ala 105 110 His Arg Val Glu Val Cys Cys Phe Met Glu Arg Pro Leu Thr Leu Thr 115 120 125 Arg Gly Ser Ser Trp Ala His Cys Ser Tyr Cys His Arg Gly Ala Thr 130 135 140 Gly Pro Trp Pro Leu Thr Phe Gln Val Leu Gly Thr Arg His Leu Gln 145 150 155 160 Arg Arg Gln Ala Gln Arg Gln Gly Gly Gln Arg Cys Trp Ser Gly Arg 165 170 Cys Gly Thr Trp Arg Tyr Arg Met Pro Cys Trp 185 187

<210> 1277 <211> 481 <212>Amino acid <213> Homo sapiens

<400> 1277 Gln Glu Asn Gln Leu Glu Lys Lys Met Lys Phe Leu Ile Phe Ala Phe 10 Phe Gly Gly Val His Leu Leu Ser Leu Cys Ser Gly Lys Ala Ile Cys 25 Lys Asn Gly Ile Ser Lys Arg Thr Phe Glu Glu Ile Lys Glu Glu Ile 4.0 Ala Ser Cys Gly Asp Val Ala Lys Ala Ile Ile Asn Leu Ala Val Tyr 55 60 Gly Lys Ala Gln Asn Arg Ser Tyr Glu Arg Leu Ala Leu Leu Val Asp 70 75 Thr Val Gly Pro Arg Leu Ser Gly Ser Lys Asn Leu Glu Lys Ala Ile 90 85 Gln Ile Met Tyr Gln Asn Leu Gln Gln Asp Gly Leu Glu Lys Val His 100 105 Leu Glu Pro Val Arg Ile Pro His Trp Glu Arg Gly Glu Glu Ser Ala 120 Val Met Leu Glu Pro Arg Ile His Lys Ile Ala Ile Leu Gly Leu Gly 135 Ser Ser Ile Gly Thr Pro Pro Glu Gly Ile Thr Ala Glu Val Leu Val 150 155 Val Thr Ser Phe Asp Glu Leu Gln Arg Arg Ala Ser Glu Ala Arg Gly 170 Lys Ile Val Val Tyr Asn Gln Pro Tyr Ile Asn Tyr Ser Arg Thr Val 185 Gln Tyr Arg Thr Gln Gly Ala Val Glu Ala Ala Lys Val Gly Ala Leu 200 Ala Ser Leu Ile Arg Ser Val Ala Ser Phe Ser Ile Tyr Ser Pro His 215 220 Thr Gly Ile Gln Glu Tyr Gln Asp Gly Val Pro Lys Ile Pro Thr Ala 230 235 Cys Ile Thr Val Glu Asp Ala Glu Met Met Ser Arg Met Ala Ser His 245 250 Gly Ile Lys Ile Val Ile Gln Leu Lys Met Gly Ala Lys Thr Tyr Pro 265 Asp Thr Asp Ser Phe Asn Thr Val Ala Glu Ile Thr Gly Ser Lys Tyr 280 Pro Glu Gln Val Val Leu Val Ser Gly His Leu Asp Ser Trp Asp Val 295 300 Gly Gln Gly Ala Met Asp Asp Gly Gly Gly Ala Phe Ile Ser Trp Glu

783

```
315
Ala Leu Ser Leu Ile Lys Asp Leu Gly Leu Arg Pro Lys Arg Thr Leu
                              330
Arg Leu Val Leu Trp Thr Ala Glu Glu Gln Gly Gly Val Gly Ala Phe
                           345
Gln Tyr Tyr Gln Leu His Lys Val Asn Ile Ser Asn Tyr Ser Leu Val
      355 360
Met Glu Ser Asp Ala Gly Thr Phe Leu Pro Thr Gly Leu Gln Phe Thr
  370 375
                                     380
Gly Ser Glu Lys Ala Arg Ala Ile Met Glu Glu Val Met Ser Leu Leu
                390
                                395
Gln Pro Leu Asn Ile Thr Gln Val Leu Ser His Gly Glu Gly Thr Asp
             405
                               410
Ile Asn Phe Trp Ile Gln Ala Gly Val Pro Gly Ala Ser Leu Leu Asp
      420
                           425
Asp Leu Tyr Lys Tyr Phe Phe Phe His His Ser His Gly Asp Thr Met
                       440
Thr Val His Gly Ile Gln Thr Gln Met Asn Val Ala Ala Ala Val Trp
                    455
Ala Val Val Ser Tyr Val Val Ala Asp Met Glu Glu Met Leu Pro Arg
                470
Ser
481
```

<210> 1278 <211> 428 <212>Amino acid <213> Homo sapiens

<400> 1278 Thr Lys Pro Arg Lys Arg Arg His Gln Pro Ala Ser Gln Arg Gln Arg 5 10 Pro Trp Ser Ser Asp Ser Thr Gly Asp Leu Leu Ala Arg Gly Lys Gly 20 25 Arg Lys Glu Glu Asn Lys Gly Ser Asp Arg Val Ser Leu Ala Pro Pro 35 40 Ser Leu Arg Arg Pro Met Met Cys Gln Ser Glu Ala Arg Gln Gly Pro 55 Glu Leu Arg Ala Ala Lys Trp Leu His Phe Pro Gln Leu Ala Leu Arg 70 75 Arg Arg Leu Gly Gln Leu Ser Cys Met Ser Arg Pro Ala Leu Lys Leu 85 90 Arg Ser Trp Pro Leu Thr Val Leu Tyr Tyr Leu Leu Pro Phe Gly Ala 100 105 Leu Arg Pro Leu Ser Arg Val Gly Trp Arg Pro Val Ser Arg Val Ala 120 Leu Tyr Lys Ser Val Pro Thr Arg Leu Leu Ser Arg Ala Trp Gly Arg 135 140 Leu Asn Gln Val Glu Leu Pro His Trp Leu Arg Arg Pro Val Tyr Ser 150 155 Leu Tyr Ile Trp Thr Phe Gly Val Asn Met Lys Glu Ala Ala Val Glu 165 170 Asp Leu His His Tyr Arg Asn Leu Ser Glu Phe Phe Arg Arg Lys Leu 1.80 185 Lys Pro Gln Ala Arg Pro Val Cys Gly Leu His Ser Val Ile Ser Pro 200 Ser Asp Gly Arg Ile Leu Asn Phe Gly Gln Val Lys Asn Cys Glu Val 215 220 Glu Gln Val Lys Gly Val Thr Tyr Ser Leu Glu Ser Phe Leu Gly Pro

```
230
                                  235
Arg Met Cys Thr Glu Asp Leu Pro Phe Pro Pro Ala Ala Ser Cys Asp
                  250
Ser Phe Lys Asn Gln Leu Val Thr Arg Glu Gly Asn Glu Leu Tyr His
                  265
Cys Val Ile Tyr Leu Ala Pro Gly Asp Tyr His Cys Phe His Ser Pro
                      280
Thr Asp Trp Thr Val Ser His Arg Arg His Phe Pro Gly Ser Leu Met
       295
Ser Val Asn Pro Gly Met Ala Arg Trp Ile Lys Glu Leu Phe Cys His
                310
                                 315
Asn Glu Arg Val Val Leu Thr Gly Asp Trp Lys His Gly Phe Phe Ser
            325
                              330
Leu Thr Ala Val Gly Ala Thr Asn Trp Gly Ser Ile Arg Ile Tyr Phe
                345
         340
Asp Arg Asp Leu His Thr Asn Ser Pro Arg His Ser Lys Gly Ser Tyr
      355 360
                              365
Asn Asp Phe Ser Phe Val Thr His Thr Asn Arg Glu Gly Val Pro Met
  370 375
Arg Lys Gly Glu His Leu Gly Glu Phe Asn Leu Gly Ser Thr Ile Val
                390
                        395
Leu Ile Phe Glu Ala Pro Lys Asp Phe Asn Phe Gln Leu Lys Thr Gly
                            410
Gln Lys Ile Arg Phe Gly Glu Ala Leu Gly Ser Leu
```

<210> 1279

<211> 633 <212>Amino acid

<213> Homo sapiens

<400> 1279 Leu Pro Glu Arg Ala Phe Gly Pro Arg Thr Pro Arg Ala Pro Arg Arg 5 10 Arg Arg Arg Leu Leu Ser Pro Pro Pro Arg Pro Pro Pro Pro 20 Leu Asp Arg Glu Pro Arg Ala Pro Gly Pro Trp Leu Cys Pro Ser Arg Ala Gly Thr Ala Gln Asp Pro Ala Arg Ile Arg Glu Arg Arg Gly Arg 55 Val Ala Gly Gly Ala Ala Gly Pro Ala Met Glu Leu Arg Ala Arg Gly 70 75 Trp Trp Leu Leu Cys Ala Ala Ala Leu Val Ala Cys Ala Arg Gly 90 Asp Pro Ala Ser Lys Ser Arg Ser Cys Gly Glu Val Arg Gln Ile Tyr 105 Gly Ala Lys Gly Phe Ser Ser Ser Asp Val Pro Gln Ala Glu Ile Ser 120 Gly Glu His Leu Arg Ile Cys Pro Gln Gly Tyr Thr Cys Cys Thr Ser 135 Glu Met Glu Glu Asn Leu Ala Asn Arg Ser His Ala Glu Leu Glu Thr 150 155 Ala Leu Arg Asp Ser Ser Arg Val Leu Gln Ala Met Leu Ala Thr Gln 165 170 Leu Arg Ser Phe Asp Asp His Phe Gln His Leu Leu Asn Asp Ser Glu 185 Arg Thr Leu Gln Ala Thr Phe Pro Gly Ala Phe Gly Glu Leu Tyr Thr 200 Gln Asn Ala Arg Ala Phe Arg Asp Leu Tyr Ser Glu Leu Arg Leu Tyr

```
215
                                         220
Tyr Arg Gly Ala Asn Leu His Leu Glu Glu Thr Leu Ala Glu Phe Trp
                 230
                         235
Ala Arg Leu Leu Glu Arg Leu Phe Lys Gln Leu His Pro Gln Leu Leu
            245
                                 250 255
Leu Pro Asp Asp Tyr Leu Asp Cys Leu Gly Lys Gln Ala Glu Ala Leu
                            265
Arg Pro Phe Gly Glu Ala Pro Arg Glu Leu Arg Leu Arg Ala Thr Arg
                       280
Ala Phe Val Ala Ala Arg Ser Phe Val Gln Gly Leu Gly Val Ala Ser
                      295
                                         300
Asp Val Val Arg Lys Val Ala Gln Val Pro Leu Gly Pro Glu Cys Ser
                 310
                                     315
Arg Ala Val Ile Glu Ala Gly Ser Tyr Cys Ala Leu His Cys Val Gly
               325
                                 330
Val Pro Gly Ala Arg Pro Cys Pro Asp Tyr Cys Arg Asn Val Leu Lys
           340
                            345
Gly Cys Leu Ala Asn Gln Ala Asp Leu Asp Ala Glu Trp Arg Asn Leu
                         360
                                           365
Leu Asp Ser Met Val Leu Ile Thr Asp Lys Phe Trp Gly Thr Ser Gly
                      375
                                    380
Val Glu Ser Val Ile Gly Ser Val His Thr Trp Leu Ala Glu Ala Ile
                  390
                                    395
Asn Ala Leu Gln Asp Asn Arg Asp Thr Leu Thr Ala Lys Val Ile Gln
               405
                             410
Gly Cys Gly Asn Pro Lys Val Asn Pro Gln Gly Pro Gly Pro Glu Glu
                            425
Lys Arg Arg Arg Gly Lys Leu Ala Pro Arg Glu Arg Pro Pro Ser Gly
      435
                       440
Thr Leu Glu Lys Leu Val Ser Glu Ala Lys Ala Gln Leu Arg Asp Val
                     455
                                        460
Gln Asp Phe Trp Ile Ser Leu Pro Gly Thr Leu Cys Ser Glu Lys Met
                 470
                                    475
Ala Leu Ser Thr Ala Ser Asp Asp Arg Cys Trp Asn Gly Met Ala Arg
              485
                                490
Gly Arg Tyr Leu Pro Glu Val Met Gly Asp Gly Leu Ala Asn Gln Ile
          500
                            505
Asn Asn Pro Glu Val Glu Val Asp Ile Thr Lys Pro Asp Met Thr Ile
                         520
Arg Gln Gln Ile Met Gln Leu Lys Ile Met Thr Asn Arg Leu Arg Ser
                     535
Ala Tyr Asn Gly Asn Asp Val Asp Phe Gln Asp Ala Ser Asp Asp Gly
                 550
                                    555
Ser Gly Ser Gly Ser Gly Asp Gly Cys Leu Asp Asp Leu Cys Gly Arg
              565
                                570
Lys Val Ser Arg Lys Ser Ser Ser Ser Arg Thr Pro Leu Thr His Ala
          580
                             585
Leu Pro Gly Leu Ser Glu Gln Glu Gly Gln Lys Thr Ser Ala Ala Ser
                        600
Cys Pro Gln Pro Pro Thr Phe Leu Leu Pro Leu Leu Leu Phe Leu Ala
                     615
                                       620
Leu Thr Val Ala Arg Pro Arg Trp Arg
                 630 633
```

<210> 1280 <211> 133

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)...(133)

<223> X = any amino acid or stop code

<400> 1280 Ala Thr Glu Leu Thr Arg Ala Gly Met Glu Ala Ser Ala Leu Thr Lys 10 Ser Ala Val Thr Ser Val Ala Lys Val Val Arg Val Ala Ser Gly Ser 25 Ala Val Val Leu Pro Leu Ala Arg Ile Ala Thr Ser Cys Asp Xaa Arg 40 Val Gly Gly Pro Val Gln Ala Val Pro Met Val Leu Ser Ala Met Gly 55 Leu Gln Leu Arg Ala Gly Ile Ala Ser Ser Ser Ile Ala Ala Lys Met 70 Met Ser Ala Ala Ala Ile Ala Asn Gly Gly Gly Val Ser Pro Gly Gln 90 Pro Leu Trp Leu Leu Gln Ser Leu Gly Ala Thr Gly Leu Ser Gly 105 Leu Thr Lys Phe Ile Leu Gly Ser Ile Gly Ser Ala Ile Ala Ala Val 115 120 Ile Ala Arg Phe Tyr 133

<210> 1281 <211> 457 <212>Amino acid <213> Homo sapiens

130

<400> 1281 Thr Asn Gly Arg Asn Leu Leu His His Trp Ile Leu Gly Val Cys Gly 5 10 Met His Pro His His Gln Glu Thr Leu Lys Lys Asn Arg Val Val Leu 25 Ala Lys Gln Leu Leu Ser Glu Leu Leu Glu His Leu Leu Glu Lys 40 Asp Ile Ile Thr Leu Glu Met Arg Glu Leu Ile Gln Ala Lys Val Gly 55 Ser Phe Ser Gln Asn Val Glu Leu Leu Asn Leu Leu Pro Lys Arg Gly 70 75 Pro Gln Ala Phe Asp Ala Phe Cys Glu Ala Leu Arg Glu Thr Lys Gln Gly His Leu Glu Asp Met Leu Leu Thr Thr Leu Ser Gly Leu Gln His 100 105 Val Leu Pro Pro Leu Ser Cys Asp Tyr Asp Leu Ser Leu Pro Phe Pro 120 Val Cys Glu Ser Cys Pro Leu Tyr Lys Lys Leu Arg Leu Ser Thr Asp 135 140 Thr Val Glu His Ser Leu Asp Asn Lys Asp Gly Pro Val Cys Leu Gln 150 155 Val Lys Pro Cys Thr Pro Glu Phe Tyr Gln Thr His Phe Gln Leu Ala 165 170 Tyr Arg Leu Gln Ser Arg Pro Arg Gly Leu Ala Leu Val Leu Ser Asn 180 185 Val His Phe Thr Gly Glu Lys Glu Leu Glu Phe Arg Ser Gly Gly Asp 200 Val Asp His Ser Thr Leu Val Thr Leu Phe Lys Leu Leu Gly Tyr Asp 210

Val His Val Leu Cys Asp Gln Thr Ala Gln Glu Met Gln Glu Lys Leu 230 235 Gln Asn Phe Ala Gln Leu Pro Ala His Arg Val Thr Asp Scr Cys Ile 245 250 255 Val Ala Leu Leu Ser His Gly Val Glu Gly Ala Ile Tyr Gly Val Asp 260 265 Gly Lys Leu Leu Gln Leu Gln Glu Val Phe Gln Leu Phe Asp Asn Ala 280 Asn Cys Pro Ser Leu Gln Asn Lys Pro Lys Met Phe Phe Ile Gln Ala 295 300 Cys Arg Gly Gly Ala Ile Gly Ser Leu Gly His Leu Leu Phe Thr 310 315 Ala Ala Thr Ala Ser Leu Ala Leu Glu Thr Asp Arg Gly Val Asp Gln 325 330 Gln Asp Gly Lys Asn His Ala Gly Ser Pro Gly Cys Glu Glu Ser Asp 340 345 Ala Gly Lys Glu Lys Leu Pro Lys Met Arg Leu Pro Thr Arg Ser Asp 360 Met Ile Cys Gly Tyr Ala Cys Leu Lys Gly Thr Ala Ala Met Arg Asn 375 380 Thr Lys Arg Gly Ser Trp Tyr Ile Glu Ala Leu Ala Gln Val Phe Ser 3 9 0 395 Glu Arg Ala Cys Asp Met His Val Ala Asp Met Leu Val Lys Val Asn 405 410 Ala Leu Ile Lys Asp Arg Glu Gly Tyr Ala Pro Gly Thr Glu Phe His 420 425 Arg Cys Lys Glu Met Ser Glu Tyr Cys Ser Thr Leu Cys Arg His Leu 435 440 Tyr Leu Phe Pro Gly His Pro Pro Thr 455 457

<210> 1282 <211> 195 <212>Amino acid <213> Homo sapiens

<400> 1282 Val Arg Gly Lys Glu Val Met Ala Ala Leu Cys Arg Thr Arg Ala Val 10 Ala Ala Glu Ser His Phe Leu Arg Val Phe Leu Phe Phe Arg Pro Phe 25 Arg Gly Val Gly Thr Glu Ser Gly Ser Glu Ser Gly Ser Ser Asn Ala 40 Lys Glu Pro Lys Thr Arg Ala Gly Gly Phe Ala Ser Ala Leu Glu Arg 55 His Ser Glu Leu Leu Gln Lys Val Glu Pro Leu Gln Lys Gly Ser Pro 70 Lys Asn Val Glu Ser Phe Ala Ser Met Leu Arg His Ser Pro Leu Thr 85 Gln Met Gly Pro Ala Lys Asp Lys Leu Val Ile Gly Arg Ile Phe His 105 Ile Val Glu Asn Asp Leu Tyr Ile Asp Phe Gly Gly Lys Phe His Cys 120 125 Val Cys Arg Arg Pro Glu Val Asp Gly Glu Lys Tyr Gln Lys Gly Thr 135 140 Arg Val Arg Leu Arg Leu Leu Asp Leu Glu Leu Thr Ser Arg Phe Leu 150 155 160 Gly Ala Thr Thr Asp Thr Thr Val Leu Glu Ala Asn Ala Val Leu Leu 165 170

Gly Ile Glu Ser Lys Asp Ser Arg Ser Lys Glu Glu His Leu Glu
180 185 190
Lys Tyr Ile
195

<210> 1283 <211> 1499 <212>Amino acid <213> Homo sapiens

<400> 1283 Ile Pro Gly Ala Ser Pro Ala Pro Arg Arg Ala Ala Pro Leu Arg Leu Gly Leu Arg Leu Ala Ser Gly Trp Ala Arg Ala Pro Gly Gly Val Ser 25 Pro Val Pro Gly Pro Gly Met Gly Gly Asp Ala Pro Thr Met Ala Arg 40 Ala Gln Ala Leu Val Leu Glu Leu Thr Phe Gln Leu Cys Ala Pro Glu 55 Thr Glu Thr Pro Glu Val Gly Cys Thr Phe Glu Glu Gly Ser Asp Pro 70 Ala Val Pro Cys Glu Tyr Ser Gln Ala Gln Tyr Asp Asp Phe Gln Trp 90 Glu Gln Val Arg Ile His Pro Gly Thr Arg Ala Pro Ala Asp Leu Pro 105 His Gly Ser Tyr Leu Met Val Asn Thr Ser Gln His Ala Pro Gly Gln 120 Arg Ala His Val Ile Phe Gln Ser Leu Ser Glu Asn Asp Thr His Cys 135 140 Val Gln Phe Ser Tyr Phe Leu Tyr Ser Arg Asp Gly His Ser Pro Gly 150 155 Thr Leu Gly Val Tyr Val Arg Val Asn Gly Gly Pro Leu Gly Ser Ala 165 170 Val Trp Asn Met Thr Gly Ser His Gly Arg Gln Trp His Gln Ala Glu 185 Leu Ala Val Ser Thr Phe Trp Pro Asn Glu Tyr Gln Val Leu Phe Glu 200 Ala Leu Ile Ser Pro Asp Arg Arg Gly Tyr Met Gly Leu Asp Asp Ile 215 Leu Leu Leu Ser Tyr Pro Cys Ala Lys Ala Pro His Phe Ser Arg Leu 230 Gly Asp Val Glu Val Asn Ala Gly Gln Asn Ala Ser Phe Gln Cys Met 245 250 Ala Ala Gly Arg Ala Ala Glu Ala Glu Arg Phe Leu Leu Gln Arg Gln 265 Ser Gly Ala Leu Val Pro Ala Ala Gly Val Arg His Ile Ser His Arg 280 Arg Phe Leu Ala Thr Phe Pro Leu Ala Ala Val Ser Arg Ala Glu Gln 295 Asp Leu Tyr Arg Cys Val Ser Gln Ala Pro Arg Gly Arg Gly Thr Ser 310 315 Leu Asn Phe Ala Glu Phe Met Val Lys Glu Pro Pro Thr Pro Ile Ala 325 330 Pro Pro Gln Leu Leu Arg Ala Gly Pro Thr Tyr Leu Ile Ile Gln Leu 345 Asn Thr Asn Ser Ile Ile Gly Asp Gly Pro Ile Val Arg Lys Glu Ile 360 Glu Tyr Arg Met Ala Arg Gly Pro Trp Ala Glu Val His Ala Val Ser 375

```
Leu Gln Thr Tyr Lys Leu Trp His Leu Asp Pro Asp Thr Glu Tyr Glu
                                      395
 Ile Ser Val Leu Leu Thr Arg Pro Gly Asp Gly Gly Thr Gly Arg Pro
                                   410
Gly Pro Pro Leu Ile Ser Arg Thr Lys Cys Ala Glu Pro Met Arg Ala
                               425
 Pro Lys Gly Leu Ala Phe Ala Glu Ile Gln Ala Arg Gln Leu Thr Leu
               440
Gln Trp Glu Pro Leu Gly Tyr Asn Val Thr Arg Cys His Thr Tyr Thr
                       455
Val Ser Leu Cys Tyr His Tyr Thr Leu Gly Ser Ser His Asn Gln Thr
                  470
Ile Arg Glu Cys Val Lys Thr Glu Gln Gly Val Ser Arg Tyr Thr Met
              485
                                  490
Lys Asn Leu Leu Pro Tyr Arg Asn Val His Val Arg Leu Val Leu Thr
           500
                              505
Asn Pro Glu Gly Arg Lys Glu Gly Lys Glu Val Thr Phe Gln Thr Asp
                          520
Glu Asp Val Pro Ser Gly Ile Ala Ala Glu Ser Leu Thr Phe Thr Pro
                      535
                                          540
Leu Glu Asp Met Ile Phe Leu Lys Trp Glu Glu Pro Gln Glu Pro Asn
                   550
                                      555
Gly Leu Ile Thr Gln Tyr Glu Ile Ser Tyr Gln Ser Ile Glu Ser Ser
               565
                                 570
Asp Pro Ala Val Asn Val Pro Gly Pro Arg Arg Thr Ile Ser Lys Leu
           580
                               585
Arg Asn Glu Thr Tyr His Val Phe Ser Asn Leu His Pro Gly Thr Thr
                          600
Tyr Leu Phe Ser Val Arg Ala Arg Thr Gly Lys Gly Phe Gly Gln Ala
                      615
Ala Leu Thr Glu Ile Thr Thr Asn Ile Ser Ala Pro Ser Phe Asp Tyr
                  630
                                      635
Ala Asp Met Pro Ser Pro Leu Gly Glu Ser Glu Asn Thr Ile Thr Val
              645
                                  650
Leu Leu Arg Pro Ala Gln Gly Arg Gly Ala Pro Ile Ser Val Tyr Gln
           660
                               665
Val Ile Val Glu Glu Glu Gln Gly Ser Arg Arg Leu Arg Arg Glu Pro
                          680
Gly Gly Gln Asp Cys Phe Pro Val Pro Leu Thr Phe Glu Ala Ala Leu
                      695
                                          700
Ala Arg Gly Leu Val Asp Tyr Phe Gly Ala Glu Leu Ala Ala Ser Ser
                  710
                                      715
Leu Pro Glu Ala Met Pro Phe Thr Val Gly Asp Asn Lys Thr Tyr Arg
                                  730
Gly Phe Trp Asn Pro Pro Leu Glu Pro Arg Lys Ala Tyr Leu Ile Tyr
                               745
Phe Gln Ala Ala Ser His Leu Lys Gly Glu Thr Arg Leu Asn Cys Ile
                          760
Arg Ile Ala Arg Lys Ala Ala Cys Lys Glu Ser Lys Arg Pro Leu Glu
                      775
                                          780
Val Ser Gln Arg Ser Glu Glu Met Gly Leu Ile Leu Gly Ile Cys Ala
                  790
                                     795
Gly Gly Leu Ala Val Leu Ile Leu Leu Leu Gly Ala Ile Ile Val Ile
              805
                                 810
Ile Arg Lys Gly Arg Asp His Tyr Ala Tyr Ser Tyr Tyr Pro Lys Pro
           820
                              825
Val Asn Met Thr Lys Ala Thr Val Asn Tyr Arg Gln Glu Lys Thr His
                          840
Met Met Ser Ala Val Asp Arg Ser Phe Thr Asp Gln Ser Thr Leu Gln
                      855
                                         860
Glu Asp Glu Arg Leu Gly Leu Ser Phe Met Asp Thr His Gly Tyr Ser
               870
                                      875
Thr Arg Gly Asp Gln Arg Ser Gly Gly Val Thr Glu Ala Ser Ser Leu
                                  890
```

```
Leu Gly Gly Ser Pro Arg Arg Pro Cys Gly Arg Lys Gly Ser Pro Tyr
                        905
 His Thr Gly Gln Leu His Pro Ala Val Arg Val Ala Asp Leu Leu Gln
                    920
                             925
 His Ile Asn Gln Met Lys Thr Ala Glu Gly Tyr Gly Phe Lys Gln Glu
                 935
                                940
 Tyr Glu Ser Phe Phe Glu Gly Trp Asp Ala Thr Lys Lys Lys Asp Lys
      950
                    955
 Val Lys Gly Ser Arg Gln Glu Pro Met Pro Ala Tyr Asp Arg His Arg
           965 970 975
 Val Lys Leu His Pro Met Leu Gly Asp Pro Asn Ala Asp Tyr Ile Asn
         980 985 990
 Ala Asn Tyr Ile Asp Ile Arg Ile Asn Arg Glu Gly Tyr His Arg Ser
     995 1000 1005
Asn His Phe Ile Ala Thr Gln Gly Pro Lys Pro Glu Met Val Tyr Asp
 1010 1015
                        1020
Phe Trp Arg Met Val Trp Gln Glu His Cys Ser Ser Ile Val Met Ile
     1030 1035
Thr Lys Leu Val Glu Val Gly Arg Val Lys Cys Ser Arg Tyr Trp Pro
      1045 1050
Glu Asp Ser Asp Thr Tyr Gly Asp Ile Lys Ile Met Leu Val Lys Thr
       1060 1065 1070
Glu Thr Leu Ala Glu Tyr Val Val Arg Thr Phe Ala Leu Glu Arg Arg
   1075 1080 1085
Gly Tyr Ser Ala Arg His Glu Val Arg Gln Phe His Phe Thr Ala Tro
                       1100
        1095
Pro Glu His Gly Val Pro Tyr His Ala Thr Gly Leu Leu Ala Phe Ile
       1110 1115
Arg Arg Val Lys Ala Ser Thr Pro Pro Asp Ala Gly Pro Ile Val Ile
          1125 1130 1135
His Cys Ser Ala Gly Thr Gly Arg Thr Gly Cys Tyr Ile Val Leu Asp
        1140 1145
                                   1150
Val Met Leu Asp Met Ala Glu Cys Glu Gly Val Val Asp Ile Tyr Asn
     1155 1160 1165
Cys Val Lys Thr Leu Cys Ser Arg Arg Val Asn Met Ile Gln Thr Glu
  1170 1175 1180
Glu Gln Tyr Ile Phe Ile His Asp Ala Ile Leu Glu Ala Cys Leu Cys
      1190 1195
Gly Glu Thr Thr Ile Pro Val Ser Glu Phe Lys Ala Thr Tyr Lys Glu
          1205 1210
Met Ile Arg Ile Asp Pro Gln Ser Asn Ser Ser Gln Leu Arg Glu Glu
        1220 1225 1230
Phe Gln Thr Leu Asn Ser Val Thr Pro Pro Leu Asp Val Glu Glu Cys
     1235 1240 1245
Ser Ile Ala Leu Leu Pro Arg Asn Arg Asp Lys Asn Arg Ser Met Asp
  1250 1255 1260
Val Leu Pro Pro Asp Arg Cys Leu Pro Phe Leu Ile Ser Thr Asp Gly
1265 1270 1275 1280
Asp Ser Asn Asn Tyr Ile Asn Ala Ala Leu Thr Asp Ser Tyr Thr Arg
         1285 1290 1295
Ser Ala Ala Phe Ile Val Thr Leu His Pro Leu Gln Ser Thr Thr Pro
       1300 1305 1310
Asp Phe Trp Gly Leu Val Tyr Asp Tyr Gly Cys Thr Ser Ile Val Met
    1315 1320 1325
Leu Asn Gln Leu Asn Gln Ser Asn Ser Ala Trp Pro Cys Leu Gln Tyr
  1330 1335 1340
Trp Pro Glu Pro Gly Arg Gln Gln Tyr Gly Leu Met Glu Val Glu Phe
1345 1350 1355
Met Ser Gly Thr Ala Asp Glu Asp Leu Val Ala Arg Val Phe Arg Val
          1365 1370 1375
Gln Asn Ile Ser Arg Leu Gln Glu Gly His Leu Leu Val Arg His Phe
       1380 1385 1390
Gln Phe Leu Arg Trp Ser Ala Tyr Arg Asp Thr Pro Asp Ser Lys Lys
     1395
                   1400
                                 1405
```

Ala Phe Leu His Leu Leu Ala Glu Gly Asp Lys Trp Gln Ala Glu Ser 1410

1415

1420

1430

1431

1430

1435

1435

1436

1435

1435

1435

1435

1436

1435

1436

1435

1436

1435

1436

1435

1436

1435

1450

1455

1450

1455

1450

1455

1450

1455

1460

1465

1465

1465

1460

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

1465

<210> 1284 <211> 430 <212>Amino acid <213> Homo sapiens

<400> 1284 Thr Lys Pro Arg Lys Arg Arg His Gln Pro Ala Ser Gln Arg Gln Arg 10 Pro Trp Ser Ser Asp Ser Thr Gly Asp Leu Leu Ala Arg Gly Lys Gly 20 25 Arg Lys Glu Glu Asn Lys Gly Ser Asp Arg Val Ser Leu Ala Pro Pro 35 -40 Ser Leu Arg Arg Pro Met Met Cys Gln Ser Glu Ala Arg Gln Gly Pro 55 Glu Leu Arg Ala Ala Lys Trp Leu His Phe Pro Gln Leu Ala Leu Arg 70 75 Arg Arg Leu Gly Gln Leu Ser Cys Met Ser Arg Pro Ala Leu Lys Leu 85 90 Arg Ser Trp Pro Leu Thr Val Leu Tyr Tyr Leu Leu Pro Phe Gly Ala 100 105 Leu Arg Pro Leu Ser Arg Val Gly Trp Arg Pro Val Ser Arg Val Ala 120 Leu Tyr Lys Ser Val Pro Thr Arg Leu Leu Ser Arg Ala Trp Gly Arg 135 140 Leu Asn Gln Val Glu Leu Pro His Trp Leu Arg Arg Pro Val Tyr Ser 155 Leu Tyr Ile Trp Thr Phe Gly Val Asn Met Lys Glu Ala Ala Val Glu 170 Asp Leu His His Tyr Arg Asn Leu Ser Glu Phe Phe Arg Arg Lys Leu 185 Lys Pro Gln Ala Arg Pro Val Cys Gly Leu His Ser Val Ile Ser Pro 200 Ser Asp Gly Arg Ile Leu Asn Phe Gly Gln Val Lys Asn Cys Glu Val 215 Glu Gln Val Lys Gly Val Thr Tyr Ser Leu Glu Ser Phe Leu Gly Pro 230 235 Arg Met Cys Thr Glu Asp Leu Pro Phe Pro Pro Ala Ala Ser Cys Asp 245 250 Ser Phe Lys Asn Gln Leu Val Thr Arg Glu Gly Asn Glu Leu Tyr His 260 265 Cys Val Ile Tyr Leu Ala Pro Gly Asp Tyr His Cys Phe His Ser Pro 280 Thr Asp Trp Thr Val Ser His Arg Arg His Phe Pro Gly Ser Leu Met 295 300 Ser Val Asn Pro Gly Met Ala Arg Trp Ile Lys Glu Leu Phe Cys His 315

Asn Glu Arg Val Val Leu Thr Gly Asp Trp Lys His Gly Phe Phe Ser 325 330 Leu Thr Ala Val Gly Ala Thr Asn Trp Gly Ser Ile Arg Ile Tyr Phe 345 Asp Arg Asp Leu His Thr Asn Ser Pro Arg His Ser Lys Gly Ser Tyr 360 Asn Asp Phe Ser Phe Val Thr His Thr Asn Arg Glu Gly Val Pro Met 375 380 Ala Leu Arg Gly Glu His Leu Gly Gln Ser Phe Asn Leu Gly Ser Thr 395 390 Ile Val Leu Ile Phe Glu Ala Pro Lys Asp Phe Asn Phe Gln Leu Lys 410 Thr Gly Gln Lys Ile Arg Phe Gly Glu Ala Leu Gly Ser Leu 425

<210> 1285 <211> 957 <212>Amino acid <213> Homo sapiens

<400> 1285 Ala Glu Leu Gly Leu Phe Gly Ser Leu Arg Phe Ser Ser Leu Leu His 10 Phe Pro Pro Arg Pro Arg Ser Pro Ala Ser Ala Cys Gly Pro Gly Glu 25 Gly Arg Met Glu Arg Gly Leu Pro Leu Leu Cys Ala Val Leu Ala Leu 40 Val Leu Ala Pro Ala Gly Ala Phe Arg Asn Asp Lys Cys Gly Asp Thr 55 Ile Lys Ile Glu Ser Pro Gly Tyr Leu Thr Ser Pro Gly Tyr Pro His 70 75 Ser Tyr His Pro Ser Glu Lys Cys Glu Trp Leu Ile Gln Ala Pro Asp 85 90 Pro Tyr Gln Arg Ile Met Ile Asn Phe Asn Pro His Phe Asp Leu Glu 100 105 Asp Arg Asp Cys Lys Tyr Asp Tyr Val Glu Val Phe Asp Gly Glu Asn 120 Glu Asn Gly His Phe Arg Gly Lys Phe Cys Gly Lys Ile Ala Pro Pro 135 140 Pro Val Val Ser Ser Gly Pro Phe Leu Phe Ile Lys Phe Val Ser Asp 145 150 155 160 Tyr Glu Thr His Gly Ala Gly Phe Ser Ile Arg Tyr Glu Ile Phe Lys 165 170 Arg Gly Pro Glu Cys Ser Gln Asn Tyr Thr Thr Pro Ser Gly Val Ile 185 190 Lys Ser Pro Gly Phe Pro Glu Lys Tyr Pro Asn Ser Leu Glu Cys Thr 200 Tyr Ile Val Phe Ala Pro Lys Met Ser Glu Ile Ile Leu Asp Phe Glu 215 220 Ser Phe Asp Leu Glu Pro Asp Ser Asn Pro Pro Gly Gly Met Phe Cys 230 235 Arg Tyr Asp Arg Leu Glu Ile Trp Asp Gly Phe Pro Asp Val Gly Pro 245 250 255 His Ile Gly Arg Tyr Cys Gly Gln Lys Thr Pro Gly Arg Ile Arg Ser 260 265 Ser Ser Gly Ile Leu Ser Met Val Phe Tyr Thr Asp Ser Ala Ile Ala 280 285 Lys Glu Gly Phe Ser Ala Asn Tyr Ser Val Leu Gln Ser Ser Val Ser

```
Glu Asp Phe Lys Cys Met Glu Ala Leu Gly Met Glu Ser Gly Glu Ile
                                       315
His Ser Asp Gln Ile Thr Ala Ser Ser Gln Tyr Ser Thr Asn Trp Ser
                                  330
 Ala Glu Arg Ser Arg Leu Asn Tyr Pro Glu Asn Gly Trp Thr Pro Gly
                              345
 Glu Asp Ser Tyr Arg Glu Trp Ile Gln Val Asp Leu Gly Leu Leu Arg
                          360
                                           365
Phe Val Thr Ala Val Gly Thr Gln Gly Ala Ile Ser Lys Glu Thr Lys
                       375
                                          380
 Lys Lys Tyr Tyr Val Lys Thr Tyr Lys Ile Asp Val Ser Ser Asn Gly
                   390
                                      395
Glu Asp Trp Ile Thr Ile Lys Glu Gly Asn Lys Pro Val Leu Phe Gln
               405
                                  410
Gly Asn Thr Asn Pro Thr Asp Val Val Val Ala Val Phe Pro Lys Pro
                               425
Leu Ile Thr Arg Phe Val Arg Ile Lys Pro Ala Thr Trp Glu Thr Gly
                           440
Ile Ser Met Arg Phe Glu Val Tyr Gly Cys Lys Ile Thr Asp Tyr Pro
                      455
                                          460
Cys Ser Gly Met Leu Gly Met Val Ser Gly Leu Ile Ser Asp Ser Gln
                  470
                                      475
Ile Thr Ser Ser Asn Gln Gly Asp Arg Asn Trp Met Pro Glu Asn Ile
                                  490
Arg Leu Val Thr Ser Arg Ser Gly Trp Ala Leu Pro Pro Ala Pro His
                               505
Ser Tyr Ile Asn Glu Trp Leu Gln Ile Asp Leu Gly Glu Glu Lys Ile
                          520
Val Arg Gly Ile Ile Ile Gln Gly Gly Lys His Arg Glu Asn Lys Val
                       535
                                          540
Phe Met Arg Lys Phe Lys Ile Gly Tyr Ser Asn Asn Gly Ser Asp Trp
                   550
                                      555
Lys Met Ile Met Asp Asp Ser Lys Arg Lys Ala Lys Ser Phe Glu Gly
                                  570
Asn Asn Asn Tyr Asp Thr Pro Glu Leu Arg Thr Phe Pro Ala Leu Ser
                              585
Thr Arg Phe Ile Arg Ile Tyr Pro Glu Arg Ala Thr His Gly Gly Leu
                          600
Gly Leu Arg Met Glu Leu Leu Gly Cys Glu Val Glu Ala Pro Thr Ala
                      615
Gly Pro Thr Thr Pro Asn Gly Asn Leu Val Asp Glu Cys Asp Asp Asp
                   630
                                      635
Gln Ala Asn Cys His Ser Gly Thr Gly Asp Asp Phe Gln Leu Thr Gly
               645
                                  650
Gly Thr Thr Val Leu Ala Thr Glu Lys Pro Thr Val Ile Asp Ser Thr
           660
                              665
Ile Gln Ser Glu Phe Pro Thr Tyr Gly Phe Asn Cys Glu Phe Gly Trp
                           680
Gly Ser His Lys Thr Phe Cys His Trp Glu His Asp Asn His Val Gln
                       695
                                         700
Leu Lys Trp Ser Val Leu Thr Ser Lys Thr Gly Pro Ile Gln Asp His
                   710
                                      715
Thr Gly Asp Gly Asn Phe Ile Tyr Ser Gln Ala Asp Glu Asn Gln Lys
                                 730
Gly Lys Val Ala Arg Leu Val Ser Pro Val Val Tyr Ser Gln Asn Ser
           740
                 745
Ala His Cys Met Thr Phe Trp Tyr His Met Ser Gly Ser His Val Gly
                          760
Thr Leu Arg Val Lys Leu Arg Tyr Gln Lys Pro Glu Glu Tyr Asp Gln
                      775
                                          780
Leu Val Trp Met Ala Ile Gly His Gln Gly Asp His Trp Lys Glu Gly
                  790
                                      795
Arg Val Leu Leu His Lys Ser Leu Lys Leu Tyr Gln Val Ile Phe Glu
               805
                                  810
```

Gly Glu Ile Gly Lys Gly Asn Leu Gly Gly Ile Ala Val Asp Asp Ile 825 Ser Ile Asn Asn His Ile Ser Gln Glu Asp Cys Ala Lys Pro Ala Asp 840 Leu Asp Lys Lys Asn Pro Glu Ile Lys Ile Asp Glu Thr Gly Ser Thr 855 Pro Gly Tyr Glu Gly Glu Gly Glu Gly Asp Lys Asn Ile Ser Arg Lys 870 875 Pro Gly Asn Val Leu Lys Thr Leu Glu Pro Ile Leu Ile Thr Ile Ile 885 890 Ala Met Ser Ala Leu Gly Val Leu Leu Gly Ala Val Cys Gly Val Val 905 910 Leu Tyr Cys Ala Cys Trp His Asn Gly Met Ser Glu Arg Asn Leu Ser 920 925 Ala Leu Glu Asn Tyr Asn Phe Glu Leu Val Asp Gly Val Lys Leu Lys 935 940 Lys Asp Lys Leu Asn Thr Gln Ser Thr Tyr Ser Glu Ala 945 950 955 957

<210> 1286 <211> 173 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(173)

<223> X = any amino acid or stop code

<400> 1286 His Glu Gly Ser Ala Leu Thr Trp Ala Ser His Tyr Gln Glu Arg Leu 5 Asn Ser Glu Gln Ser Cys Leu Asn Glu Trp Thr Ala Met Ala Asp Leu 20 25 Glu Ser Leu Arg Pro Pro Ser Ala Glu Pro Gly Gly Ser Val Cys Gly 40 Gly Glu Gly Leu Gly Gly Glu Gly Arg Ile Met Gln Trp Gly Ala Trp Trp Arg Gly Glu Arg Ala Pro Xaa Leu Arg Gly Ser Ala Pro Arg 70 Ser Ser Glu Gln Glu Gln Met Glu Gln Ala Ile Arg Ala Glu Leu Trp 90 Lys Val Leu Asp Val Ser Asp Leu Glu Ser Val Thr Ser Lys Glu Ile 105 Arg Gln Ala Leu Glu Leu Arg Leu Gly Leu Pro Leu Gln Pro Val Pro 120 Xaa Leu His Arg Gln Pro Asp Ala Ala Ala Gly Gly Thr Ala Gly Pro 135 140 Ser Leu Pro His Leu Pro Pro Pro Leu Pro Gly Leu Arg Val Glu Arg 150 155 Ser Lys Pro Gly Gly Ala Ala Glu Glu Gln Val Gly Leu 165 170

<210> 1287 <211> 181 <212>Amino acid

<212>Amino acid <213> Homo sapiens

<400> 1287

Met Ala Ala Leu Asp Leu Arg Ala Glu Leu Asp Ser Leu Val Leu Gln Leu Leu Gly Asp Leu Glu Glu Leu Glu Gly Lys Arg Thr Val Leu Asn Ala Arg Val Glu Glu Gly Trp Leu Ser Leu Ala Lys Ala Arg Tyr Ala 40 Met Gly Ala Lys Ser Val Gly Pro Leu Gln Tyr Ala Ser His Met Glu 55 Pro Gln Val Cys Leu His Ala Ser Glu Ala Gln Glu Gly Leu Gln Lys

70 Phe Lys Val Val Arg Ala Gly Val His Ala Pro Glu Glu Val Gly Pro 85 Arg Glu Ala Gly Leu Arg Arg Lys Gly Pro Thr Lys Thr Pro Glu

1.05 Pro Glu Ser Ser Glu Ala Pro Gln Asp Pro Leu Asn Trp Phe Gly Ile 120

Leu Val Pro His Ser Leu Arg Gln Ala Gln Ala Ser Phe Arg Asp Gly 135

Leu Gln Leu Ala Ala Asp Ile Ala Ser Leu Gln Asn Arg Ile Asp Trp 150 155 Gly Arg Ser Gln Leu Arg Gly Leu Gln Glu Lys Leu Lys Gln Leu Glu

Pro Gly Ala Ala * 180

<210> 1288 <211> 216 <212>Amino acid <213> Homo sapiens

<400> 1288 His Ser Asp Val Gly Ala Ala Thr Ala Val Leu Pro Leu Leu Thr Ala 10 Val Leu Gly Val Thr Val Val Thr Arg Arg Asp Thr Glu Gly Pro Gly Arg Ala Ala Leu Val His Leu Thr Gly Ser Pro Arg Gln Lys Val Gly 40 Thr Ser Gly Arg Glu Gly Leu Pro Gly Leu Gly Ala Ser Cys Ala Glu 55 Ser Glu Leu Glu Arg Glu Thr Gln Glu Pro Arg Ser Arg Gly Arg Cys 70 Ile Phe Gly Ala Ala Arg Trp Arg Gln Val Pro Leu Ala Ser Pro Gln 90 Arg Pro Phe Leu Leu Ser Pro Gly Pro Arg Leu His Arg Met Gly Leu 105 Pro Val Ser Trp Ala Pro Pro Ala Leu Trp Val Leu Gly Cys Cys Ala 120 Leu Leu Leu Ser Leu Trp Ala Leu Cys Thr Ala Cys Arg Arg Pro Glu 135 140 Asp Ala Val Ala Pro Arg Lys Arg Ala Arg Arg Gln Arg Ala Arg Leu 150 155 Gln Gly Ser Ala Thr Ala Ala Glu Ala Val Ser Ala Lys Leu Ser Arg 165 170 Gly Pro Gly Trp Gly Pro Gln Gly Thr Asp Gln Pro Ser Ser Pro Pro

180

185

190

195

200

205

210

210

1218

2210

1289

2211>
148

2212-Markino acid

<211> 148
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(148)

<223> X = any amino acid or stop code

<400> 1289 Leu Thr Gly Pro Gly Gln Arg Leu Ala Gly Thr Thr Glu Gly Pro Arg 10 Arg Cys Arg Gly Ser Ser Gln Ala Pro Thr Pro Thr Trp Lys Leu Val 25 Asp Thr Arg Leu Cys Ala Ala Ala Pro Trp Leu Ala Ser Arg Ala Pro Gly His Tyr Ser Gln Met Leu Leu Val Asn Xaa Pro Cys Arg Lys Asp 55 Trp Leu Val Ser Lys Trp Met Arg Thr Pro Val Cys Gly Gln Ser Pro 70 75 Ala Met Thr Asp Arg Pro Arg Ser Glu Ala Gly Arg Asp His Arg Arg 90 Ala Lys Ala Leu Pro Gly Leu Ile Pro Gly Ser Asn Pro Asn Leu Glu 100 105 Ala Cys Gly His Gln Ala Leu Cys Ser Ser Ser Val Ala Ser Val Gln 120 Gly Pro Trp Pro Leu Leu Pro Asn Ala Ser Ser Pro Pro Thr Pro Gly 135 140 Gln Pro Gln Pro 145 148

<210 > 1290
<211> 170
<212>Amino acid
<213 > Homo sapiens
<220>
<221> misc_feature
<2221 | misc_feature
<2222 (1) ... (170)
<2233 X = any amino acid or stop code</pre>

 $<\!400\!>$ 1290 Lys His Arg Leu Cys Ser Leu Glu Gln Leu Met Thr Leu Ile Ser Ala 1 5 10 15 Ala Arg Glu Tyr Glu Ile Glu Phe Ile Tyr Ala Ile Ser Pro Gly Leu 25 30 Asp Ile Thr Phe Ser Asn Pro Lys Glu Val Ser Thr Leu Lys Arg Lys

35 40 40 41 41 42

<210> 1291 <211> 98 <212>Amino acid <213> Homo sapiens

<210> 1292 <211> 142 <212>Amino acid <213> Homo sapiens

<210 > 1293
<211 > 89
<212 > Amino acid
<213 > Homo sapiens
<220 > (221 > misc_feature
<222 > (1) ... (89)
<223 > X = any amino acid or stop code

<210> 1294 <211> 80 <212>Amino acid . <213> Homo sapiens

<210> 1295 <211> 281 <212>Amino acid <213> Homo sapiens

<400> 1295 Ala Glu Met Ala Asp Asp Leu Gly Asp Glu Trp Trp Glu Asn Gln Pro 1 Thr Gly Ala Gly Ser Ser Pro Glu Ala Ser Asp Gly Glu Gly Glu Gly Asp Thr Glu Val Met Gln Gln Glu Thr Val Pro Val Pro Val Pro Ser 3.5 Glu Lys Thr Lys Gln Pro Lys Glu Cys Phe Leu Ile Gln Pro Lys Glu 55 Arg Lys Glu Asn Thr Thr Lys Thr Arg Lys Arg Arg Lys Lys Lys Ile 70 75 Thr Asp Val Leu Ala Lys Ser Glu Pro Lys Pro Gly Leu Pro Glu Asp 90 Leu Gln Lys Leu Met Lys Asp Tyr Tyr Ser Ser Arg Arg Leu Val Ile 105 Glu Leu Glu Glu Leu Asn Leu Pro Asp Ser Cys Phe Leu Lys Ala Asn 120 125 Asp Leu Thr His Ser Leu Ser Ser Tyr Leu Lys Glu Ile Cys Pro Lys 135 140 Trp Val Lys Leu Arg Lys Asn His Ser Glu Lys Lys Ser Val Leu Met 150 155 Leu Ile Ile Cys Ser Ser Ala Val Arg Ala Leu Glu Leu Ile Arg Ser 165 170 Met Thr Ala Phe Arg Gly Asp Gly Lys Val Ile Lys Leu Phe Ala Lys 180 185 His Ile Lys Val Gln Ala Gln Val Lys Leu Leu Glu Lys Arg Val Val 195 200 His Leu Gly Val Gly Thr Pro Gly Arg Ile Lys Glu Leu Val Lys Gln 215 Gly Gly Leu Asn Leu Ser Pro Leu Lys Phe Leu Val Phe Asp Trp Asn 230 235 Trp Arg Asp Gln Lys Leu Arg Arg Met Met Asp Ile Pro Glu Ile Arg 245 250 Lys Glu Val Phe Glu Leu Leu Glu Met Gly Val Leu Ser Leu Cys Lys Ser Glu Ser Leu Lys Leu Gly Leu Phe 280 281

<210> 1296 <211> 213 <212>Amino acid <213> Homo sapiens

400> 1296

Arg Pro Gly Thr Ala Ile Trp Val Val Glu Cys Glu His Gly Arg Pro

1 10 10 15

The Ala Glu Ser Glu Gly Gln Glu Gly Arg Gly His Ser Pro Pro Gly

20 25 30

Pro Cys Ser Val Ala Gly Phe Leu Arg Gly Arg Leu Gly Arg Asn Leu

35 40

Glu Ile Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala 55 Leu Cys Leu Thr Gly Leu Val Leu Ser Leu Tvr Ala Leu His Val Lvs 75 Ala Ala Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly 90 Thr Ala Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Trp Gly Arg Gly 105 Phe Gly Leu Val Glu His Val Leu Gly Gln Asp Ser Ile Leu Asn Gln 120 115 Ser Asn Ser Ile Phe Gly Cys Ile Phe Tyr Thr Leu Gln Leu Leu 140 135 Gly Cys Leu Arg Thr Arg Trp Ala Ser Val Leu Met Leu Leu Ser Ser 150 155 Leu Val Ser Leu Ala Gly Ser Val Tyr Leu Ala Trp Ile Leu Phe Phe 165 170 Val Leu Tyr Asp Phe Cys Ile Val Cys Ile Thr Thr Tyr Ala Ile Asn 180 185 Val Ser Leu Met Trp Leu Ser Phe Arg Lys Val Gln Glu Pro Gln Gly 195 200 Lvs Ala Lvs Arq His 210 213

<210> 1297 <211> 353 <212>Amino acid <213> Homo sapiens

<400> 1297 Glu Ser Pro Ala Pro Pro Ala Phe Arg Pro Ala Met Ala Ala Val Ala 10 Leu Met Pro Pro Pro Leu Leu Leu Leu Leu Leu Ala Ser Pro Pro 25 Ala Ala Ser Ala Pro Ser Ala Arg Asp Pro Phe Ala Pro Gln Leu Gly 40 Asp Thr Gln Asn Cys Gln Leu Arg Cys Arg Asp Arg Asp Leu Gly Pro 55 Gln Pro Ser Gln Ala Gly Leu Glu Gly Ala Ser Glu Ser Pro Tyr Asp 70 75 Arg Ala Val Leu Ile Ser Ala Cys Glu Arg Gly Cys Arg Leu Phe Ser 85 Ile Cys Arg Phe Val Ala Arg Ser Ser Lys Pro Asn Ala Thr Gln Thr 100 105 Glu Cys Glu Ala Ala Cys Val Glu Ala Tyr Val Lys Glu Ala Glu Gln 120 Gln Ala Cys Ser His Gly Cys Trp Ser Gln Pro Ala Glu Pro Glu Pro 140 135 Glu Gln Lys Arg Lys Val Leu Glu Ala Pro Ser Gly Ala Leu Ser Leu 155 150 Leu Asp Leu Phe Ser Thr Leu Cys Asn Asp Leu Val Asn Ser Ala Gln 165 170 Gly Phe Val Ser Ser Thr Trp Thr Tyr Tyr Leu Gln Thr Asp Asn Gly 180 185 Lys Val Val Val Phe Gln Thr Gln Pro Ile Val Glu Ser Leu Gly Phe 195 200 205 Gln Gly Gly Arg Leu Gln Arg Val Glu Val Thr Trp Arg Gly Ser His 210 215 220 Pro Glu Ala Leu Glu Val His Val Asp Pro Val Gly Pro Leu Asp Lys 230 235

Val Arg Lys Ala Lys Ile Arg Val Lys Thr Ser Ser Lys Ala Lys Val 245 250 Glu Ser Glu Glu Pro Gln Asp Asn Asp Phe Leu Ser Cys Met Ser Arg 260 265 Arg Ser Gly Leu Pro Arg Trp Ile Leu Ala Cys Cys Leu Phe Leu Ser 275 280 Val Leu Val Met Leu Trp Leu Ser Cys Ser Thr Leu Val Thr Ala Pro 295 300 Gly Gln His Leu Lys Phe Gln Pro Leu Thr Leu Glu Gln His Lys Gly 310 315 Phe Met Met Glu Pro Asp Trp Pro Leu Tyr Pro Pro Pro Ser His Ala 330 335 325 Cys Glu Asp Ser Leu Pro Pro Tyr Lys Leu Lys Leu Asp Leu Thr Lys 345 Leu 353

<210> 1298 <211> 161 <212>Amino acid <213> Homo sapiens

<400> 1298

10 Thr Phe Leu Leu Leu Ala Leu Ser Thr Ala Ala Gln Ala Glu Pro Val 25 Gln Phe Lys Asp Cys Gly Ser Val Asp Gly Val Ile Lys Glu Val Asn 40 Val Ser Pro Cys Pro Thr Gln Pro Cys Gln Leu Ser Lys Gly Gln Ser 55 Tyr Ser Val Asn Val Thr Phe Thr Ser Asn Ile Gln Ser Lys Ser Ser 75 Lys Ala Val Val His Gly Ile Leu Met Gly Val Pro Val Pro Phe Pro 90 Ile Pro Glu Pro Asp Gly Cys Lys Ser Gly Ile Asn Cys Pro Ile Gln 105 Lys Asp Lys Thr Tyr Ser Tyr Leu Asn Lys Leu Pro Val Lys Ser Glu

Phe Pro Glu Leu Gly Thr Ser Leu Ser Ala Met Arg Phe Leu Ala Ala

Tyr Pro Ser Ile Lys Leu Val Val Glu Trp Gln Leu Gln Asp Asp Lys 135 140 Asn Gln Ser Leu Phe Cys Trp Glu Ile Pro Val Gln Ile Val Ser His 145 150

120

Leu 161

> <210> 1299 <211> 128 <212>Amino acid <213> Homo sapiens

<400> 1299 Ala Pro Glu Thr Phe Arg Cys Val Trp Arg Leu Gln Gly Leu Thr Phe 10

Ile Ala Phe Thr Glu Leu Gln Ala Lys Val Ile Asp Thr Gln Gln Lys 25 Val Lys Leu Ala Asp Ile Gln Ile Glu Gln Leu Asn Arg Thr Lys Lys 40 His Ala His Leu Thr Asp Thr Glu Ile Met Thr Leu Val Asp Glu Thr 55 Asn Met Tyr Glu Gly Val Gly Arg Met Phe Ile Leu Gln Ser Lys Glu 70 75 Ala Ile His Ser Gln Leu Leu Glu Lys Gln Lys Ile Ala Glu Glu Lys 85 Ile Lys Glu Leu Glu Gln Lys Lys Ser Tyr Leu Glu Arg Ser Val Lys 105 110 Glu Ala Glu Asp Asn Ile Arg Glu Met Leu Met Ala Arg Arg Ala Gln 120

<210> 1300
<211> 265
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(265)
<223> X = any amino acid or stop code

<400> 1300 His Ser Leu Leu Gly Thr Arg Val Arg Asp Ala Ser Ser Lys Ile . 5 Gln Gly Glu Tyr Thr Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu 20 Ser Arg Val Phe His Arg Asp Gly His Tyr Gly Phe Ser Glu Pro Leu Thr Phe Cys Ser Val Val Asp Leu Ile Asn His Tyr Arg His Glu Ser Leu Ala Gln Tyr Asn Ala Lys Leu Asp Thr Arg Leu Leu Tyr Pro Val 70 Ser Lys Tyr Gln Gln Val Arg Ala Gly Leu Gly Ala Arg Glu Gly Ser 90 Thr Trp Leu Ala Pro Gly Leu Ser Phe Leu Gly Arg Pro Asp Gln Ala 105 Met His Leu Pro Ser Phe Arg His Val Ser Pro Asp Gln Ile Val Lys 120 Glu Asp Ser Val Glu Ala Val Gly Ala Gln Leu Lys Val Tyr His Gln 135 Gln Tyr Gln Asp Lys Ser Arg Glu Tyr Asp Gln Leu Tyr Glu Glu Tyr 150 155 Thr Arg Thr Ser Gln Glu Leu Gln Met Lys Arg Thr Ala Ile Glu Ala 165 170 Phe Asn Glu Thr Ile Lys Ile Phe Glu Glu Gln Gly Gln Thr Gln Glu 180 185 190 Lys Cys Ser Lys Glu Tyr Leu Glu Arg Phe Arg Arg Glu Gly Asn Gln 200 205 Thr Lys Glu Met Gln Arg Ile Leu Leu Asn Ser Glu Arg Leu Lys Ser 215 220 Arg Ile Ala Glu Ile His Glu Ser Pro His Arg Ser Trp Glu Gln Gln 230 235 Leu Leu Val Pro Arg Ala Ser Asp Asn Lys Arg Asp Ile Asp Lys Pro

255

245 250

His Xaa Thr Ser Leu Lys Pro Asp Leu
260 265

260 269

<211> 490 <212>Amino acid <213> Homo sapiens

<210> 1301

<400> 1301 Ala Ala Ala Ala Gly Arg Gly Arg Ser Ser Gly Arg Arg Arg 10 Arg Arg Pro Gly Ala Leu Phe Ala Ser Leu Gly Val Leu Leu Gly Pro Arg Pro Pro Pro Gly Ile Pro Arg Thr Arg Ala Cys Ser Met Gly Gly Val Gly Glu Pro Gly Pro Arg Glu Gly Pro Ala Gln Pro Gly Ala Pro Leu Pro Thr Phe Cys Trp Glu Gln Ile Arg Ala His Asp Gln Pro Gly 75 Asp Lys Trp Leu Val Ile Glu Arg Arg Val Tyr Asp Ile Ser Arg Trp 90 Ala Gln Arg His Pro Gly Gly Ser Arg Leu Ile Gly His His Gly Ala 105 Glu Asp Ala Thr Asp Ala Phe Arg Ala Phe His Gln Asp Leu Asn Phe 120 Val Arg Lys Phe Leu Gln Pro Leu Leu Ile Gly Glu Leu Ala Pro Glu 135 140 Glu Pro Ser Gln Asp Gly Pro Leu Asn Ala Gln Leu Val Glu Asp Phe 150 155 Arg Ala Leu His Gln Ala Ala Glu Asp Met Lys Leu Phe Asp Ala Ser 165 170 Pro Thr Phe Phe Ala Phe Leu Leu Gly His Ile Leu Ala Met Glu Val 185 Leu Ala Trp Leu Leu Ile Tyr Leu Leu Gly Pro Gly Trp Val Pro Ser 200 Ala Leu Ala Ala Phe Ile Leu Ala Ile Ser Gln Ala Gln Ser Trp Cys 215 220 Leu Gln His Asp Leu Gly His Ala Ser Ile Phe Lys Lys Ser Trp Trp 230 235 Asn His Val Ala Gln Lys Phe Val Met Gly Gln Leu Lys Gly Phe Ser 245 250 Ala His Trp Trp Asn Phe Arg His Phe Gln His His Ala Lys Pro Asn 260 265 Ile Phe His Lys Asp Pro Asp Val Thr Val Ala Pro Val Phe Leu Leu 280 285 Gly Glu Ser Ser Val Glu Tyr Gly Lys Lys Lys Arg Arg Tyr Leu Pro 295 300 Tyr Asn Gln Gln His Leu Tyr Phe Phe Leu Ile Gly Pro Pro Leu Leu 310 315 Thr Leu Val Asn Phe Glu Val Glu Asn Leu Ala Tyr Met Leu Val Cys 325 330 Met Gln Trp Ala Asp Leu Leu Trp Ala Ala Ser Phe Tyr Ala Arg Phe 340 345 Phe Leu Ser Tyr Leu Pro Phe Tyr Gly Val Pro Gly Val Leu Leu Phe 360 Phe Val Ala Val Arg Val Leu Glu Ser His Trp Phe Val Trp Ile Thr 375 Gln Met Asn His Ile Pro Lys Glu Ile Gly His Glu Lys His Arg Asp

385

390

390

395

400

Trp Val Ser Ser Gln Leu Ala Ala Thr Cys Asn Val Glu Pro Ser Leu 410

415

Phe Thr Asn Trp Phe Ser Gly His Leu Asn Phe Gln Lle Glu His His His 420

425

Leu Phe Pro Arg Met Pro Arg His Asn Try Ser Arg Val Ala Pro Leu 435

Val Lys Ser Leu Cys Ala Lys His Gly Leu Ser Tyr Glu Val Lys Pro 450

450

Phe Leu Thr Ala Leu Val Asp Ile Val Arg Ser Leu Lys Lys Ser Gly Asp Ile Try Leu Asp Ala Tyr Leu His Gln

480

Asp Ile Try Leu Asp Ala Tyr Leu His Gln

489

<210> 1302 <211> 110 <212>Amino acid <213> Homo sapiens

<400> 1302 Lys Ser Arg Ala Thr Arg Leu Arg Glu Ser Ala Glu Met Thr Gly Phe 5 0.5 Leu Leu Pro Pro Ala Ser Arg Gly Thr Arg Arg Ser Cys Ser Arg Ser 20 25 Arg Lys Arg Gln Thr Arg Arg Arg Arg Asn Pro Ser Ser Phe Val Ala 40 Ser Cys Pro Thr Leu Leu Pro Phe Ala Cys Val Pro Gly Ala Ser Pro 55 Thr Thr Leu Ala Phe Pro Pro Val Val Leu Thr Gly Pro Ser Thr Asp 70 75 Gly Ile Pro Phe Ala Leu Ser Leu Gln Arg Val Pro Phe Val Leu Pro 85 90 Ser Pro Gln Val Ala Ser Leu Pro Leu Gly His Ser Arg Gly

<210> 1303 <211> 138 <212>Amino acid <213> Homo sapiens

100 105 110 Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val Arg Lys 115 120 125 Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr 130 135 138

<210> 1304 <211> 1000 <212>Amino acid <213> Homo sapiens

<400> 1304 Ile Pro Gly Ser Thr Ile Ser Cys Arg Gly Cys Cys Gly Lys Trp Pro 5 1.0 Val Gln Glu Ala Asp Pro Pro Arg Ala Ala Leu Arg Gly Arg Phe Pro 25 Ala Leu Leu Thr Arg His Cys Pro Ser Pro Arg Ala Glu Lys Glu Lys 40 Arg Ser Leu Arg Arg Cys Gly Cys Arg Pro Leu Leu Val Glu Leu Ala 55 Gly Pro Ala Gly Gln Ala Val Glu Val Leu Pro His Phe Glu Ser Leu 70 75 Gly Lys Gln Glu Lys Ile Pro Asn Lys Met Ser Ala Phe Arg Asn His 90 Cys Pro His Leu Asp Ser Val Gly Glu Ile Thr Lys Glu Asp Leu Ile 105 Gln Lys Ser Leu Gly Thr Cys Gln Asp Cys Lys Val Gln Gly Pro Asn 120 Leu Trp Ala Cys Leu Glu Asn Arg Cys Ser Tyr Val Gly Cys Gly Glu 135 Ser Gln Val Asp His Ser Thr Ile His Ser Gln Glu Thr Lys His Tyr 150 155 Leu Thr Val Asn Leu Thr Thr Leu Arg Val Trp Cys Tyr Ala Cys Ser 165 170 175 Lys Glu Val Phe Leu Asp Arg Lys Leu Gly Thr Gln Pro Ser Leu Pro 180 185 His Val Arg Gln Pro His Gln Ile Gln Glu Asn Ser Val Gln Asp Phe 200 Lys Ile Pro Ser Asn Thr Thr Leu Lys Thr Pro Leu Val Ala Val Phe 215 220 Asp Asp Leu Asp Ile Glu Ala Asp Glu Glu Asp Glu Leu Arg Ala Arg 230 235 Gly Leu Thr Gly Leu Lys Asn Ile Gly Asn Thr Cys Tyr Met Asn Ala 250 Ala Leu Gln Ala Leu Ser Asn Cys Pro Pro Leu Thr Gln Phe Phe Leu 265 Asp Cys Gly Gly Leu Ala Arg Thr Asp Lys Lys Pro Ala Ile Cys Lys 280 Ser Tyr Leu Lys Leu Met Thr Glu Leu Trp Tyr Lys Ser Arg Pro Gly 295 300 Ser Val Val Pro Thr Thr Leu Phe Gln Gly Ile Lys Thr Val Asn Pro 310 315 320 Thr Phe Arg Gly Tyr Ser Gln Gln Asp Ala Gln Glu Phe Leu Arg Cys 325 330 335 Leu Met Asp Leu Leu His Glu Glu Leu Lys Glu Gln Val Met Glu Val 340 345 350 Glu Glu Asp Pro Gln Thr Ile Thr Thr Glu Glu Thr Met Glu Glu Asp 360 Lys Ser Gln Ser Asp Val Asp Phe Gln Ser Cys Glu Ser Cys Ser Asn

		370					375					380				
	385					390	1				395	5				Asp 400
	Asn	Asn	Glu	Thr	Thr 405	Met	Leu	ı Ile	Glr	410	Asp	Glu	ı Ası	ı Ası	1 Ser 415	Glu
1	Met	Ser	Lys	Asp 420	Trp	Gln	Lys	Glu	Lys 425		Cys	Ası	Lys	11e	Asr	Lys
	Val	Asn	Ser 435	Glu	Gly	Glu	Phe	Asp 440		Asp	Arg	Asp	Ser 445	: Ile	e Ser	Glu
	Thr	Val	Asp	Leu	Asn	Asn	Glr 455	Glu		Va]	Lys	Val	Glr	ıle	His	Ser
	Arg			Glu	Tyr	Ile	Thr		Val	His	Ser 475	Asr		Lev	ı Ser	Thr 480
		Gln	Ile	Leu	Pro	Ser		Glu	Gly	Val	Asn	Pro	Arg	Leu	Ser 495	Ala
	ser	Pro	Pro	Lys 500	Ser		Asn	Leu	Trp	Pro		Leu	Ala	Pro	Pro	
1	Ьуs	Lys	Ala 515	Gln		Ala	Ser	Pro	Lys		Lys	Lys	Glr 525	His	Lys	Lys
5	Гуr	Arg 530	Ser		Ile	Ser	Asp 535	Ile		Asp	Gly	Thr 540	Ile		Ser	ser
7	/al			Leu	Thr	Cys 550	Asp		Val	Ser	Val	Thr		Glu	Thr	
(ln	Asp	Leu	Ser	Leu 565			Pro	Gly	Lys 570	Glu		Leu	Ala	Lys 575	560 Leu
I	lis	Ser	Ser	Ser 580		Pro	Thr	Ser	Ile 585	Val		Ala	Gly	Ser 590	Cys	Gly
(31u	Ala	Tyr 595	Ala	Pro	Gln	Gly	Trp			Phe	Phe	Met 605	Glu	Tyr	Val
1	ys	Arg 610	Phe	Val	Val	Ser	Cys 615	Val	Pro	Ser	Trp	Phe 620	Trp	Gly	Pro	Val
\ 6	7al 525	Thr	Leu	Gln	Asp	Cys 630	Leu	Ala	Ala	Phe	Phe 635	Ala	Arg	Asp	Glu	Leu 640
Ι	ys	Gly	Asp	Asn	Met 645	Tyr	Ser	Cys	Glu	Lys 650		Lys	Lys	Leu	Arg 655	
C	lу	Val	Lys	Phe 660	Cys	Lys	Val	Gln	Asn 665		Pro	Glu	Ile	Leu 670	Cys	Ile
E	lis	Leu	Lys 675	Arg	Phe	Arg	His	Glu 680	Leu	Met	Phe	Ser	Thr 685	Lys	Ile	Ser
		690					695					700			Phe	
7	05					710					715				Ser	720
Ι	le	Cys	His	His	Gly 725	Thr	Ala	Ser	Ser	Gly 730	His	Tyr	Ile	Ala	Tyr 735	Cys
				740					745					750	Ser	
			755					760					765		Val	
P	he	Tyr 770	Arg	Lys	Ser	Ser	Glu 775	Glu	Ala	Gln	Lys	Glu 780	Arg	Arg	Arg	Ile
S 7	er 85	Asn	Leu	Leu	Asn	Ile 790	Met	Glu	Pro	Ser	Leu 795	Leu	Gln	Phe	Tyr	Ile 800
					805					810	Phe				Gly 815	Pro
Ι	le	Ser	Asn	Asn 820	Asp	Phe	Leu	Cys	Ile 825	His	Gly	Gly	Val	Pro 830	Pro	Arg
L	ys .	Ala	Gly 835	Tyr	Ile	Glu	Asp	Leu 840	Val	Leu	Met	Leu	Pro 845	Gln	Asn	Ile
		850					855	Tyr				860	Ala		Asn	
8	65					870					875	Glu			Glu	880
A:	rg .	Arg	Lys	Thr	Glu	Leu	Glu	Ile	Phe	Ile		Leu	Asn	Arg	Ala	Phe

885 890 Gln Lys Glu Asp Ser Pro Ala Thr Phe Tyr Cys Ile Ser Met Gln Trp 905 Phe Arg Glu Trp Glu Ser Phe Val Lys Gly Lys Asp Gly Asp Pro Pro 915 920 925 Gly Pro Ile Asp Asn Thr Lys Ile Ala Val Thr Lys Cys Gly Asn Val 935 940 Met Leu Arg Gln Gly Ala Asp Ser Gly Gln Ile Ser Glu Glu Thr Trp 955 Asn Phe Leu Gln Ser Ile Tyr Gly Gly Gly Pro Glu Val Ile Leu Arg 965 970 Pro Pro Val Val His Val Asp Pro Asp Ile Leu Gln Ala Glu Glu Lys 980 . 985 Ile Glu Val Glu Thr Arg Ser Leu 995

<210> 1305 <211> 141 <212>Amino acid <213> Homo sapiens

<400> 1305 Ser Pro Ser Ala Ala Gly Gly Leu Ala Trp Val Ser Leu Ala Leu Gly 10 Ser Gly Ser Arg Gly Arg Asp His Ser Gly Ser Gly Val Gly Thr Ala 25 Met Ala Gly Ala Leu Val Arg Lys Ala Ala Asp Tyr Val Arg Ser Lys 40 Asp Phe Arg Asp Tyr Leu Met Ser Thr His Phe Trp Gly Pro Val Ala 55 Asn Trp Gly Leu Pro Ile Ala Ala Ile Asn Asp Met Lys Lys Ser Pro 70 Glu Ile Ile Ser Gly Arg Met Thr Phe Ala Leu Cys Cys Tyr Ser Leu 85 90 Thr Phe Met Arg Phe Ala Tyr Lys Val Gln Pro Arg Asn Trp Leu Leu 1.00 1.05 Phe Ala Cys His Ala Thr Asn Glu Val Ala Gln Leu Ile Gln Gly Gly 120 Arg Leu Ile Lys His Glu Met Thr Lys Thr Ala Ser Ala 135

<210> 1306 <211> 386 <212>Amino acid <213> Homo sapiens

55 Gly Ser Asp Thr Ala Val Asp Ala Ala Phe Glu Pro Val Tyr Trp Leu 70 75 Val Asp Asn Val Ile Arg Trp Phe Gly Val Val Phe Val Val Leu Val Ile Val Leu Thr Gly Ser Ile Val Ala Ile Ala Tyr Leu Cys Val Leu 105 Pro Leu Ile Leu Arg Thr Tyr Ser Val Pro Arg Leu Cys Trp His Phe 120 125 Phe Tyr Ser His Trp Asn Leu Ile Leu Ile Val Phe His Tyr Tyr Gln 135 140 Ala Ile Thr Thr Pro Pro Gly Tyr Pro Pro Gln Gly Arg Asn Asp Ile 150 155 Ala Thr Val Ser Ile Cys Lys Lys Cys Ile Tyr Pro Lys Pro Ala Arg 165 170 Thr His His Cys Ser Ile Cys Asn Arg Cys Val Leu Lys Met Asp His 180 185 His Cys Pro Trp Leu Asn Asn Cys Val Gly His Tyr Asn His Arg Tyr 195 200 Phe Phe Ser Phe Cys Phe Phe Met Thr Leu Gly Cys Val Tyr Cys Ser 215 Tyr Gly Ser Trp Asp Leu Phe Arg Glu Ala Tyr Ala Ala Ile Glu Lys 230 235 Met Lys Gln Leu Asp Lys Asn Lys Leu Gln Ala Val Ala Asn Gln Thr 250 Tyr His Gln Thr Pro Pro Pro Thr Phe Ser Phe Arg Glu Arg Met Thr 265 His Lys Ser Leu Val Tyr Leu Trp Phe Leu Cys Ser Ser Val Ala Leu 280 Ala Leu Gly Ala Leu Thr Val Trp His Ala Val Leu Ile Ser Arg Gly 295 300 Glu Thr Ser Ile Glu Arg His Ile Asn Lys Lys Glu Arg Arg Arg Leu 310 315 Gln Ala Lys Gly Arg Val Phe Arg Asn Pro Tyr Asn Tyr Gly Cys Leu 325 330 335 Asp Asn Trp Lys Val Phe Leu Gly Val Asp Thr Gly Arg His Trp Leu 345 350 Thr Arg Val Leu Leu Pro Ser Ser His Leu Pro His Gly Asn Gly Met 360 365 Ser Trp Glu Pro Pro Pro Trp Val Thr Ala His Ser Ala Ser Val Met 375 380 Ala Val 385 386

<210> 1307 <211> 298 <212>Amino acid <213> Homo sapiens

```
75
Gln Glu Ile Val Val Thr His Trp His Arg Asp His Ser Gly Gly Ile
                                 90
                                                    95
Gly Asp Ile Cys Lys Ser Ile Asn Asn Asp Thr Thr Tyr Cys Ile Lys
          100
                            105
Lys Leu Pro Arg Asn Pro Gln Arg Glu Glu Ile Ile Gly Asn Gly Glu
                         120
Gln Gln Tyr Val Tyr Leu Lys Asp Gly Asp Val Ile Lys Thr Glu Gly
                             140
                     135
Ala Thr Leu Arg Val Leu Tyr Thr Pro Gly His Thr Asp Asp His Met
                 150
                                     155
Ala Leu Leu Leu Glu Glu Glu Asn Ala Ile Phe Ser Gly Asp Cys Ile
              165
                                170
Leu Gly Glu Gly Thr Thr Val Phe Glu Asp Leu Tyr Asp Tyr Met Asn
                      185
          180
Ser Leu Lys Glu Leu Leu Lys Ile Lys Ala Asp Ile Ile Tyr Pro Gly
      195
                         200
His Gly Pro Val Ile His Asn Ala Glu Ala Lys Ile Gln Gln Tyr Ile
                     215
Ser His Arg Asn Ile Arg Glu Gln Gln Ile Leu Thr Leu Phe Arg Glu
                 230
                                    235
Asn Phe Glu Lys Ser Phe Thr Val Met Glu Leu Val Lys Ile Ile Tyr
              245
                                 250
Lys Asn Thr Pro Glu Asn Leu His Glu Met Ala Lys His Asn Leu Leu
                             265
Leu His Leu Lys Lys Leu Glu Lys Glu Gly Lys Ile Phe Ser Asn Thr
                         280
Asp Pro Asp Lys Lys Trp Lys Ala His Leu
                     295
```

<400> 1308

Glu Leu His Arg Ala Gly Gln Val Ala Gly Gly Ala Arg Arg Ser Arg Arg Glu Ser Met Glu Leu Glu Arg Ile Val Ser Ala Ala Leu Leu Ala Phe Val Gln Thr His Leu Pro Glu Ala Asp Leu Ser Gly Leu Asp Glu 40 Val Ile Phe Ser Tyr Val Leu Gly Val Leu Glu Asp Leu Gly Pro Ser 55 Gly Pro Ser Glu Glu Asn Phe Asp Met Glu Ala Phe Thr Glu Met Met 70 75 Glu Ala Tyr Val Pro Gly Phe Ala His Ile Pro Arg Gly Thr Ile Gly 90 Asp Met Met Gln Lys Leu Ser Gly Gln Leu Ser Asp Ala Arg Asn Lys 100 105 Glu Asn Leu Gln Pro Gln Ser Ser Gly Val Gln Gly Gln Val Pro Ile 120

Ser Ser Ala Ala Ala Ala Asp Thr Gln Asp Glu Ala Thr Gly Ala 155 Glu Glu Glu Leu Leu Pro Gly Val Asp Val Leu Leu Glu Val Phe Pro 165 170

150

Ser Pro Glu Pro Leu Gln Arg Pro Glu Met Leu Lys Glu Glu Thr Arg 135

Thr Cys Ser Val Glu Gln Ala Gln Trp Val Leu Ala Lys Ala Arg Gly

<210> 1308

<211> 306 <212>Amino acid

<213> Homo sapiens

```
185
Asp Leu Glu Glu Ala Val Gln Met Leu Val Glu Gly Lys Glu Glu Gly
             200
Pro Ala Ala Trp Glu Gly Pro Asn Gln Asp Leu Pro Arg Arg Leu Arg
                     215
Gly Pro Gln Lys Asp Glu Leu Lys Ser Phe Ile Leu Gln Lys Tyr Met
                 230
Met Val Asp Ser Ala Glu Asp Gln Lys Ile His Arg Pro Met Ala Pro
             245
Lys Glu Ala Pro Lys Lys Leu Ile Arg Tyr Ile Asp Asn Gln Val Val
                            265
Ser Thr Lys Gly Glu Arg Phe Lys Asp Val Arg Asn Pro Glu Ala Glu
                      280
                                        285
Glu Met Lys Ala Thr Tyr Ile Asn Leu Lys Pro Ala Arg Lys Tyr Arg
Phe His
305 306
```

<210> 1309 <211> 174 <212>Amino acid <213> Homo sapiens

<400> 1309 Phe Ile Thr Gly Lys Gly Ile Val Ala Ile Leu Arg Cys Leu Gln Phe 10 Asn Glu Thr Leu Thr Glu Leu Arg Phe His Asn Gln Arg His Met Leu 20 25 Gly His His Ala Glu Met Glu Ile Ala Arg Leu Leu Lys Ala Asn Asn Thr Leu Leu Lys Met Gly Tyr His Phe Glu Leu Pro Gly Pro Arg Met 55 Val Val Thr Asn Leu Leu Thr Arg Asn Gln Asp Lys Gln Arg Gln Lys Arg Gln Glu Glu Gln Lys Gln Gln Leu Lys Glu Gln Lys Lys Leu 90 ' Ile Ala Met Leu Glu Asn Gly Leu Gly Leu Pro Pro Gly Met Trp Glu 105 Leu Leu Gly Gly Pro Lys Pro Asp Ser Arg Met Gln Glu Phe Phe Gln 120 Pro Pro Pro Pro Arg Pro Pro Asn Pro Gln Asn Val Pro Phe Ser Gln 135 140 Arg Ser Glu Met Met Lys Lys Pro Ser Gln Ala Pro Lys Tyr Arg Thr 150 155 Asp Pro Asp Ser Phe Arg Val Val Lys Leu Lys Arg Ile Gln 165 170

<210> 1310
<211> 616
<211>Amino acid
<133 Homo sapiens
<220>
<221> misc_feature
<222> (1)...(616)
<223 X = any amino acid or stop code</pre>

<400> 1310 Gly Gly Arg Ala Gly Thr Gln Cys Cys Trp Arg Ala Gly Ala Arg Leu Arg Gly Ile Ser Pro Ser Pro Ala Leu Pro Glu Ala Pro Gly Leu Cys Arg Val Arg Ala Gly Leu Gly Ala Gly Ala Leu Gly Arg Ser Pro Ala Gly Arg Arg Arg Gly Pro Arg Val Ser Ser Ser Pro Ala Pro His Pro Arg Arg Val Leu Cys Arg Cys Leu Leu Phe Leu Phe Phe Ser Cys 75 His Asp Arg Arg Gly Asp Ser Gln Pro Tyr Gln Ala Leu Lys Tyr Ser 85 90 Ser Lys Ser His Pro Ser Ser Gly Asp His Arg His Glu Lys Met Arg 105 Asp Ala Gly Asp Pro Ser Pro Pro Asn Lys Met Leu Arg Arg Ser Asp 120 Ser Pro Glu Asn Lys Tyr Ser Asp Ser Thr Gly His Ser Lys Ala Lys 140 1.35 Asn Val His Thr His Arg Val Arg Glu Arg Asp Gly Gly Thr Ser Tyr 150 155 Ser Pro Gln Glu Asn Ser His Asn His Ser Ala Leu His Ser Ser Asn 165 170 Phe Thr Phe Phe Leu Ile Pro Ser Asn Xaa Pro Gln Gly Lys Thr Phe 180 185 Arg Ile Ala Pro Tyr Asp Ser Ala Asp Asp Trp Ser Leu Glu His Ile 200 Ser Ser Ser Gly Glu Lys Tyr Tyr Tyr Asn Cys Arg Thr Glu Val Ser 215 220 Gln Trp Gly Lys Thr Pro Lys Ser Gly Leu Glu Arg Gly Gln Arg Gln 230 235 Lys Glu Ala Asn Lys Met Ala Val Asn Ser Phe Pro Lys Asp Arg Asp 245 250 Tyr Arg Arg Glu Val Met Gln Ala Thr Ala Thr Ser Gly Phe Ala Ser 265 Gly Lys Ser Thr Ser Gly Asp Lys Pro Val Ser His Ser Cys Thr Thr 280 285 Pro Ser Thr Ser Ser Ala Ser Gly Leu Asn Pro Thr Ser Ala Pro Pro 295 300 Thr Ser Ala Ser Ala Val Pro Val Ser Pro Val Pro Gln Ser Pro Ile 310 315 Pro Pro Leu Leu Gln Asp Pro Asn Leu Leu Arg Gln Leu Leu Pro Ala 325 330 Leu Glu Ala Thr Leu Gln Leu Asn Asn Ser Asn Val Asp Ile Ser Ile 340 345 Ile Asn Glu Val Leu Thr Gly Asp Val Thr Gln Ala Ser Leu Gln Thr 360 Ile Ile His Lys Cys Leu Thr Ala Gly Pro Ser Val Phe Lys Ile Thr 375 380 Ser Leu Ile Ser Gln Ala Ala Gln Leu Ser Thr Gln Ala Gln Ala Ser 390 395 400 Asn Gln Ser Pro Met Ser Leu Thr Ser Asp Ala Ser Ser Pro Arg Ser 405 410 415 Tyr Val Ser Pro Arg Asn Lys Ala His Leu Lys Leu Asn Thr Val Pro 425 Ile Gln Thr Phe Gly Phe Ser Thr Pro Pro Val Ser Ser Gln Pro Lys 440 Val Ser Thr Pro Val Val Lys Gln Gly Pro Val Ser Gln Ser Ala Thr 455 460 Gln Gln Pro Val Thr Ala Asp Lys Gln Gln Gly His Glu Pro Val Ser 475

Pro Arg Ser Leu Gln Arg Ser Ser Ser Gln Arg Ser Pro Ser Pro Gly 490 Pro Asn His Thr Ser Asn Ser Ser Asn Ala Ser Asn Ala Thr Val Val 505 510 Pro Gln Asn Ser Ser Ala Arg Ser Thr Cys Ser Leu Thr Pro Ala Leu 520 Ala Ala His Phe Ser Glu Asn Leu Ile Lys His Val Gln Gly Trp Pro 535 540 Ala Asp His Ala Glu Lys Gln Ala Ser Arg Leu Arg Glu Glu Ala His 550 555 Asn Met Gly Thr Ile His Met Ser Glu Ile Cys Thr Glu Leu Lys Asn 565 570 Leu Arg Ser Leu Val Arg Val Cys Glu Ile Gln Ala Thr Leu Arg Glu 585 Gln Arg Ile Leu Phe Leu Arg Gln Gln Ile Lys Glu Leu Glu Lys Leu 600 Lys Asn Gln Asn Ser Phe Met Val 615 616

<210> 1311 <211> 387 <212>Amino acid <213> Homo sapiens

<400> 1311 Val Ala Pro Glu Cys Arg Gly Ala Tyr Pro Phe Arg Ala Met Met Pro 10 Gly Thr Ala Leu Lys Ala Val Leu Leu Ala Val Leu Leu Val Gly Leu Gln Thr Ala Thr Gly Arg Leu Leu Ser Gly Gln Pro Val Cys Arg Gly Gly Thr Gln Arg Pro Cys Tyr Lys Val Ile Tyr Phe His Asp Thr Ser 55 Arg Arg Leu Asn Phe Glu Glu Ala Lys Glu Ala Cys Arg Arg Asp Gly 70 Gly Gln Leu Val Ser Ile Glu Ser Glu Asp Glu Gln Lys Leu Ile Glu 85 Lys Phe Ile Glu Asn Leu Leu Pro Ser Asp Gly Asp Phe Trp Ile Gly 100 105 Leu Arg Arg Arg Glu Glu Lys Gln Ser Asn Ser Thr Ala Cys Gln Asp 120 125 Leu Tyr Ala Trp Thr Asp Gly Ser Ile Ser Gln Phe Arg Asn Trp Tyr 135 140 Val Asp Glu Pro Ser Cys Gly Ser Glu Val Cys Val Val Met Tyr His 150 155 Gln Pro Ser Ala Pro Ala Gly Ile Gly Gly Pro Tyr Met Phe Gln Trp 165 170 Asn Asp Asp Arg Cys Asn Met Lys Asn Asn Phe Ile Cys Lys Tyr Ser 185 180 Asp Glu Lys Pro Ala Val Pro Ser Arg Glu Ala Glu Gly Glu Glu Thr 195 200 Glu Leu Thr Thr Pro Val Leu Pro Glu Glu Thr Gln Glu Glu Asp Ala 215 Lys Lys Thr Phe Lys Glu Ser Arg Glu Ala Ala Leu Asn Leu Ala Tyr 225 230 235 Ile Leu Ile Pro Ser Ile Pro Leu Leu Leu Leu Leu Val Val Thr Thr 245 250 Val Val Cys Trp Val Trp Ile Cys Arg Lys Arg Lys Arg Glu Gln Pro 265

Asp Pro Ser Thr Lys Lys Gln His Thr Ile Trp Pro Ser Pro His Gln 280 Gly Asn Ser Pro Asp Leu Glu Val Tyr Asn Val Ile Arg Lys Gln Ser 295 Glu Ala Asp Leu Ala Glu Thr Arg Pro Asp Leu Lys Asn Ile Ser Phe 310 315 Arg Val Cys Ser Gly Glu Ala Thr Pro Asp Asp Met Ser Cys Asp Tyr 330 Asp Asn Met Ala Val Asn Pro Ser Glu Ser Gly Phe Val Thr Leu Val 345 Ser Val Glu Ser Gly Phe Val Thr Asn Asp Ile Tyr Glu Phe Ser Pro 360 365 Asp Gln Met Gly Arg Ser Lys Glu Ser Gly Trp Val Glu Asn Glu Ile 375 Tyr Gly Tyr 385 387

<210> 1312 <211> 470 <212>Amino acid

<213> Homo sapiens

<400> 1312 Thr Glu Trp Gly Leu Ser Gly Ser Cys Pro Gly Cys Ser Pro Leu Glu 10 Pro Gly Ser Arg Gly Arg Gly Ala Ala Ala Trp Arg Ile Leu Arg Cys 25 Arg Arg Leu Pro Glu Pro Ser Pro Phe Leu Thr Gln Pro Asn Leu Ala 40 Gln Ser Gln Pro Pro Ala Pro Val Pro Val Thr Asp Pro Ser Val Thr 55 Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser Leu 75 Leu Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu Ile Thr 90 Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val 105 Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe Ser Gln Met Leu 120 His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro 135 Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser 150 155 Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu 165 170 Phe Arg Asn Gly Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser 180 185 Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile 200 Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys 215 220 Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg 230 235 Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu 245 250 Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn 260 265 Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu 280

Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys 295 Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu 3.05 310 315 Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp 330 Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile 345 Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp Cys Asp Lys Phe 360 Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val 375 380 Ile Ala Ile Asp Ser Phe Arg His Met Tyr Val Phe Gly Asp Phe Lys 390 395 Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His 405 410 Ser Gly Lys Leu His Arg Glu Phe His His Gly Pro Asp Pro Thr Asp 420 425 Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu 440 Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu Arg Asp Arg Asp Glu Leu 470

<210> 1313 <211> 262 <212>Amino acid <213> Homo sapiens

<400> 1313 Leu Thr Pro Ser Val Gly Pro Val Phe Pro Gly Arg Pro Thr Arg Pro 10 Leu Ala Ser Pro Phe Pro Val Pro Leu His Arg Cys Ser Ala Gly Ser Gln Pro Pro Gly Pro Val Pro Glu Gly Leu Ile Arg Ile Tyr Ser Met 40 Arg Phe Cys Pro Tyr Ser His Arg Thr Arg Leu Val Leu Lys Ala Lys 55 Asp Ile Arg His Glu Val Val Asn Ile Asn Leu Arg Asn Lys Pro Glu 70 Trp Tyr Tyr Thr Lys His Pro Phe Gly His Ile Pro Val Leu Glu Thr 85 Ser Gln Cys Gln Leu Ile Tyr Glu Ser Val Ile Ala Cys Glu Tyr Leu 100 105 110 Asp Asp Ala Tyr Pro Gly Arg Lys Leu Phe Pro Tyr Asp Pro Tyr Glu 120 125 Arg Ala Arg Gln Lys Met Leu Leu Glu Leu Phe Cys Lys Val Pro His 135 140 Leu Thr Lys Glu Cys Leu Val Ala Leu Arg Cys Gly Arg Glu Cys Thr 150 155 Asn Leu Lys Ala Ala Leu Arg Gln Glu Phe Ser Asn Leu Glu Glu Ile 165 170 175 Leu Glu Tyr Gln Asn Thr Thr Phe Phe Gly Gly Thr Cys Ile Ser Met 180 185 Ile Asp Tyr Leu Leu Trp Pro Trp Phe Glu Arg Leu Asp Val Tyr Gly 195 200 205 Ile Leu Asp Cys Val Ser His Thr Pro Ala Leu Arg Leu Trp Ile Ser 215 220

Ala Met Lys Trp Asp Pro Thr Val Cys Ala Leu Leu Met Asp Lys Ser 225 235 235 235 240

Ile Phe Gln Gly Phe Leu Asn Leu Tyr Phe Gln Asn Asn Pro Asn Ala 255

Phe Asp Phe Gly Leu Cys 250 255

<210> 1314 <211> 173 <212>Amino acid <213> Homo sapiens

<400> 1314 Asn Thr Ala Thr Asn Met Thr Gln Pro Asn Ala Gly Thr Arg Lys Tyr 10 Ser Val Pro Ala Ile Ser Val His Thr Ser Ser Ser Ser Phe Ala Tyr 20 25 Asp Arg Glu Phe Leu Arg Thr Leu Pro Gly Phe Leu Ile Val Ala Glu 40 Ile Val Leu Gly Leu Leu Val Trp Thr Leu Ile Ala Gly Thr Glu Tyr 55 Phe Arg Val Pro Ala Phe Gly Trp Val Met Phe Val Ala Val Phe Tyr 70 Trp Val Leu Thr Val Phe Phe Leu Ile Ile Tyr Ile Thr Met Thr Tyr 85 90 Thr Arg Ile Pro Gln Val Pro Trp Thr Thr Val Gly Leu Cys Phe Asn 100 105 Gly Ser Ala Phe Val Leu Tyr Leu Ser Ala Ala Val Val Asp Ala Ser 120 Ser Val Ser Pro Glu Arg Asp Ser His Asn Phe Asn Ser Trp Ala Ala 135 140 Ser Ser Phe Phe Ala Phe Leu Val Thr Ile Cys Tyr Ala Gly Asn Thr 150 155 Tyr Phe Ser Phe Ile Ala Trp Arg Ser Arg Thr Ile Gln 165 170

<210> 1315 <211> 259 <212>Amino acid <213> Homo sapiens

Ser Tyr Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Arg Tyr Arg Glu 100 105 Arg Arg Tyr Gly Phe Thr Arg Arg Tyr Tyr Arg Ser Pro Ser Arg Tyr 120 Arg Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Gly Arg Ser Tyr Cys 135 140 Gly Arg Ala Tyr Ala Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly 150 155 Arg Thr Val Tyr Pro Glu Glu His Ser Arg Trp Arg Asp Arg Ser Arg 165 170 Thr Arg Ser Arg Ser Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg 185 Met Glu Leu Leu Glu Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly 200 Thr Thr Asn Ile Asp Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala 215 Lys Glu Thr Ser Arg Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro 230 235 Glu Val Ser Ile Leu Gly Leu Ser Glu Gln Asn Phe Gln Lys Ala Asn 250 Cys Gln Ile 259

<210> 1316 <211> 678 <212>Amino acid <213> Homo sapiens

<400> 1316 Ala Glu Gly Ser Thr Met Asp Leu Thr Lys Met Gly Met Ile Gln Leu Gln Asn Pro Asn His Pro Thr Gly Leu Leu Cys Lys Ala Asn Gln Met Arg Leu Ala Gly Thr Leu Cys Asp Val Val Ile Met Val Asp Ser Gln Glu Phe His Ala His Arg Thr Val Leu Ala Cys Thr Ser Lys Met Phe Glu Ile Leu Phe His Arg Asn Ser Gln His Tyr Thr Leu Asp Phe Leu Ser Pro Lys Thr Phe Gln Gln Ile Leu Glu Tyr Ala Tyr Thr Ala Thr 8.5 90 Leu Gln Ala Lys Ala Glu Asp Leu Asp Asp Leu Leu Tyr Ala Ala Glu 105 Ile Leu Glu Ile Glu Tyr Leu Glu Glu Gln Cys Leu Lys Met Leu Glu 120 Thr Ile Gln Ala Ser Asp Asp Asp Thr Glu Ala Thr Met Ala Asp 135 Gly Gly Ala Glu Glu Lys Lys Asp Arg Lys Ala Arg Tyr Leu Lys Asn 150 155 Ile Phe Ile Ser Lys His Ser Ser Glu Glu Ser Gly Tyr Ala Ser Val 165 170 175 Ala Gly Gln Ser Leu Pro Gly Pro Met Val Asp Gln Ser Pro Ser Val 185 190 Ser Thr Ser Phe Gly Leu Ser Ala Met Ser Pro Thr Lys Ala Ala Val 795 200 Asp Ser Leu Met Thr Ile Gly Gln Ser Leu Leu Gln Gly Thr Leu Gln 215 220 Pro Pro Ala Gly Pro Glu Glu Pro Thr Leu Ala Gly Gly Gly Arg His

Pro Gly Val Ala Glu Val Lys Thr Glu Met Met Gln Val Asp Glu Val 250 Pro Ser Gln Asp Ser Pro Gly Ala Ala Glu Ser Ser Ile Ser Gly Gly 265 Met Gly Asp Lys Val Glu Glu Arg Gly Lys Glu Gly Pro Gly Thr Pro 280 Thr Arg Ser Ser Val Ile Thr Ser Ala Arg Glu Leu His Tyr Gly Arg 295 300 Glu Glu Ser Ala Glu Gln Val Pro Pro Pro Ala Glu Ala Gly Gln Ala 31.0 315 Pro Thr Gly Arg Pro Glu His Pro Ala Pro Pro Pro Glu Lys His Leu 325 330 Gly Ile Tyr Ser Val Leu Pro Asn His Lys Ala Asp Ala Val Leu Ser 340 345 350 Met Pro Ser Ser Val Thr Ser Gly Leu His Val Gln Pro Ala Leu Ala 360 365 Val Ser Met Asp Phe Ser Thr Tyr Gly Gly Leu Leu Pro Gln Gly Phe 375 380 Ile Gln Arg Glu Leu Phe Ser Lys Leu Gly Glu Leu Ala Val Gly Met 390 395 Lys Ser Glu Ser Arg Thr Ile Gly Glu Gln Cys Ser Val Cys Gly Val 410 Glu Leu Pro Asp Asn Glu Ala Val Glu Gln His Arg Lys Leu His Ser 425 Gly Met Lys Thr Tyr Gly Cys Glu Leu Cys Gly Lys Arg Phe Leu Asp 440 Ser Leu Arg Leu Arg Met His Leu Leu Ala His Ser Ala Gly Ala Lys 455 Ala Phe Val Cys Asp Gln Cys Gly Ala Gln Phe Ser Lys Glu Asp Ala 470 475 Leu Glu Thr His Arg Gln Thr His Thr Gly Thr Asp Met Ala Val Phe 485 490 Cys Leu Leu Cys Gly Lys Arg Phe Gln Ala Gln Ser Ala Leu Gln Gln 500 505 His Met Glu Val His Ala Gly Val Arg Ser Tyr Ile Cys Ser Glu Cys 520 Asn Arg Thr Phe Pro Ser His Thr Ala Leu Lys Arg His Leu Arg Ser 535 540 His Thr Gly Asp His Pro Tyr Glu Cys Glu Phe Cys Gly Ser Cys Phe 550 555 Arg Asp Glu Ser Thr Leu Lys Ser His Lys Arg Ile His Thr Gly Glu 565 570 Lys Pro Tyr Glu Cys Asn Gly Cys Gly Lys Lys Phe Ser Leu Lys His 580 585 Gln Leu Glu Thr His Tyr Arg Val His Thr Gly Glu Lys Pro Phe Glu 600 Cys Lys Leu Cys His Gln Arg Ser Arg Asp Tyr Ser Ala Met Ile Lys 615 620 His Leu Arg Thr His Asn Gly Ala Ser Pro Tyr Gln Cys Thr Ile Cys 630 635 Thr Glu Tyr Cys Pro Ser Leu Ser Ser Met Gln Lys His Met Lys Gly 645 650 His Lys Pro Glu Glu Ile Pro Pro Asp Trp Arg Ile Glu Lys Thr Tyr 660 665 Leu Tyr Leu Cys Tyr Val 675 678

<210> 1317

<211> 74

<212>Amino acid

<213> Homo sapiens

<210> 1318 <211> 351 <212>Amino acid <213> Homo sapiens

<400> 1318 Ala Ser Gly Ser Pro Ala Pro Ser Ser Ser Ser Ala Met Ala Ala Ala 10 Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu Leu Gly Leu His Leu 25 Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly Trp Asn Asp Pro Asp Arg 40 Met Leu Leu Arg Asp Val Lys Ala Leu Thr Leu His Tyr Asp Arg Tyr 55 Thr Thr Ser Arg Arg Leu Asp Pro Ile Pro Gln Leu Lys Cys Val Gly 75 Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val Ile Gln Cys Gln 90 Asn Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp 100 105 Leu Asp Ile Ala Tyr Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly 120 Tyr Glu Ser Ser Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu 135 Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu 150 155 Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Lys 170 175 Trp Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu Ile Thr Ile Val 180 185 Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu Phe Leu Ser Asp 200 Gly Gln Tyr Ser Pro Pro Pro Tyr Set Glu Tyr Pro Pro Phe Ser His 215 Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro Pro Pro Gly Phe 230 235 Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His Gly Ala Thr Ser 245 250 255 Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly Tyr Glu Asn Ser Gly 260 265 270 Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile Leu Gly Tyr Leu $275 \hspace{1cm} 280 \hspace{1cm} 285 \hspace{1cm}$ Phe Gly Ser Asn Arg Ala Ala Thr Pro Phe Ser Asp Ser Trp Tyr Tyr 295

 Pro
 Ser
 Tyr
 Pro
 Ser
 Tyr
 Pro
 Gly
 Thr
 Trp
 Asn
 Arg
 Ala
 Tyr
 Ser

 305
 310
 315
 315
 320
 325
 Asn
 Ser
 Asp
 Asp

 325
 320
 330
 335
 330
 345
 347
 Arg
 Arg

 Thr
 Lys
 Thr
 Ala
 Ser
 Gly
 Tyr
 Gly
 Gly
 Thr
 Arg
 Arg
 Arg

 340
 345
 350
 350
 351

<210> 1319 <211> 310 <212>Amino acid <213> Homo sapiens

<400> 1319 Gly Arg Cys Gly Ala Met Ala Ala Gly Leu Ala Arg Leu Leu Leu 10 Leu Gly Leu Ser Ala Gly Gly Pro Ala Pro Ala Gly Ala Ala Lys Met 25 Lys Val Val Glu Glu Pro Asn Ala Phe Gly Val Asn Asn Pro Phe Leu 40 Pro Gln Ala Ser Arg Leu Gln Ala Lys Arg Asp Pro Ser Pro Val Ser 55 Gly Pro Val His Leu Phe Arg Leu Ser Gly Lys Cys Phe Ser Leu Val 70 Glu Ser Thr Tyr Lys Tyr Glu Phe Cys Pro Phe His Asn Val Thr Gln 85 90 His Glu Gln Thr Phe Arg Trp Asn Ala Tyr Ser Gly Ile Leu Gly Ile 105 Trp His Glu Trp Glu Ile Ala Asn Asn Thr Phe Thr Gly Met Trp Met 120 Arg Asp Gly Asp Ala Cys Arg Ser Arg Ser Arg Gln Ser Lys Val Glu 135 140 Leu Ala Cys Gly Lys Ser Asn Arg Leu Ala His Val Ser Glu Pro Ser 150 155 Thr Cys Val Tyr Ala Leu Thr Phe Glu Thr Pro Leu Val Cys His Pro 165 170 His Ala Leu Leu Val Tyr Pro Thr Leu Pro Glu Ala Leu Gln Arg Gln 180 185 Trp Asp Gln Val Glu Gln Asp Leu Ala Asp Glu Leu Ile Thr Pro Gln 200 Gly His Glu Lys Leu Leu Arg Thr Leu Phe Glu Asp Ala Gly Tyr Leu 215 Lys Thr Pro Glu Glu Asn Glu Pro Thr Gln Leu Glu Gly Gly Pro Asp 230 235 Ser Leu Gly Phe Glu Thr Leu Glu Asn Cys Arg Lys Ala His Lys Glu 245 250 Leu Ser Lys Glu Ile Lys Arg Leu Lys Gly Leu Leu Thr Gln His Gly 260 265 Ile Pro Tyr Thr Arg Pro Thr Glu Thr Ser Asn Leu Glu His Leu Gly 275 280 His Glu Thr Pro Arg Ala Lys Ser Pro Glu Gln Leu Arg Gly Asp Pro 290 295 Gly Leu Arg Gly Ser Leu 310

<210> 1320

<211> 313

<212>Amino acid

<213> Homo sapiens

```
<400> 1320
Asn Ser Phe Trp Ser Val Leu Phe Leu Val Gln Glu Glu Thr Glu Val
                                   10
Ala Arg Cys Asn Ala Gln His Arg Leu Arg Gln Ser Arg Asp Ser Lys
                                25
Pro Asp Pro Ser Phe Arg Ser Gln Pro Ile Asp Ser Ser Ile Ser Phe
                           40
Ala Gly Ser Asp Ile Gln Pro Leu Phe Ser Phe Ala Ser Val Asp Gly
                       55
Thr Gln Val Gly Glu Ala Glu Glu Trp Ala Gly Pro Trp Ala Glu Ala
                    70
                                       75
Thr Leu Leu Pro Gly Pro Gly Asn Arg Trp Pro Pro Arg Ala Gly Leu
                                   90
Ser Gly Asn Trp Leu Glu Glu Asp Gly Asp Trp Pro Ser Leu Pro Glu
          100
                              105
Val Val Gly Phe Val Ser Glu Arg Glu Leu Phe Arg Asp Ala Leu Gly
                          120
Ala Gly Cys Arg Ile Leu Leu Ile Cys Glu Met Gln Leu Thr His Gln
                      135
                                          140
Leu Asp Leu Phe Pro Glu Cys Arg Val Thr Leu Leu Leu Phe Lys Asp
                                      155
Val Lys Asn Ala Gly Asp Leu Arg Arg Lys Ala Met Glu Gly Thr Ile
              165
                                  170
Asp Gly Ser Leu Ile Asn Pro Thr Val Ile Val Asp Pro Phe Gln Ile
                              185
Leu Val Ala Ala Asn Lys Ala Val His Leu Tyr Lys Leu Gly Lys Met
                          200
Lys Thr Arg Thr Leu Ser Thr Glu Ile Ile Phe Asn Leu Ser Pro Asn
                       215
                                          220
Asn Asn Ile Ser Glu Ala Leu Lys Lys Phe Gly Ile Ser Ala Asn Asp
                   230
                                      235
Thr Ser Ile Leu Ile Val Tyr Ile Glu Glu Gly Glu Lys Gln Ile Asn
              245
                                  250
Gln Glu Tyr Leu Ile Ser Gln Val Glu Gly His Gln Val Ser Leu Lys
          260
                              265
Asn Leu Pro Glu Ile Met Asn Ile Thr Glu Val Lys Lys Ile Tyr Lys
                          280
Leu Ser Ser Gln Glu Glu Ser Ile Gly Thr Leu Leu Asp Ala Ile Ile
                  295
Cys Arg Met Ser Thr Lys Asp Val Leu
                  310
```

<210> 1321

<211> 891

<212>Amino acid

<213> Homo sapiens

 $[\]begin{array}{c} 4400\text{b} \ \ 1321\\ \text{Gln Arg Ser Trp Ala Gly Pro Gly Ala Gly Pro Glu Ala Gly Thr Arg}\\ 1 & 5 & 10 & 15\\ \text{Pro Pro Ala Arg Gly Arg Arg Arg Gln Pro Gly Ass Val Asp Pro Arg}\\ 20 & 25 & 30\\ \text{Arg Arg Ala Pro Gln Leu Arg Ser Gln Met Gln Val Ala Met Ala Arg}\\ 35 & 40 & 45\\ \end{array}$

Ala Thr Thr Ala Thr Gly Asn Arg Leu Trp Pro Gly Leu Leu Ile Met Leu Gly Ser Leu Cys His Arg Gly Ser Pro Cys Gly Leu Ser Thr His Ile Glu Ile Gly His Arg Ala Leu Glu Phe Leu Gln Leu His Asn Gly Arg Val Asn Tyr Arg Glu Leu Leu Glu His Gln Asp Ala Tyr Gln Ala Gly Ile Val Phe Pro Asp Cys Phe Tyr Pro Ser Ile Cys Lys Gly 120 125 Gly Lys Phe His Asp Val Ser Glu Ser Thr His Trp Thr Pro Phe Leu 135 140 Asn Ala Ser Val His Tyr Ile Arg Glu Asn Tyr Pro Leu Pro Trp Glu Lys Asp Thr Glu Lys Leu Val Ala Phe Leu Phe Gly Ile Thr Ser His Met Ala Ala Asp Val Ser Trp His Ser Leu Gly Leu Glu Gln Gly Phe Leu Arg Thr Met Gly Ala Ile Asp Phe His Gly Ser Tyr Ser Glu Ala His Ser Ala Gly Asp Phe Gly Gly Asp Val Leu Ser Gln Phe Glu Phe Asn Phe Asn Tyr Leu Ala Arg Arg Trp Tyr Val Pro Val Lys Asp Leu Leu Gly Ile Tyr Glu Lys Leu Tyr Gly Arg Lys Val Ile Thr Glu Asn Val Ile Val Asp Cys Ser His Ile Gln Phe Leu Glu Met Tyr Gly Glu Met Leu Ala Val Ser Lys Leu Tyr Pro Thr Tyr Ser Thr Lys Ser Pro Phe Leu Val Glu Gln Phe Gln Glu Tyr Phe Leu Gly Gly Leu Asp Asp Met Ala Phe Trp Ser Thr Asn Ile Tyr His Leu Thr Ile Phe Met Leu Glu Asn Gly Thr Ser Asp Cys Asn Leu Pro Glu Asn Pro Leu Phe Ile Ala Cys Gly Gly Gln Gln Asn His Thr Gln Gly Ser Lys Met Gln Lys Asn Asp Phe His Arg Asn Leu Thr Thr Ser Leu Thr Glu Ser Val Asp Arg Asn Ile Asn Tyr Thr Glu Arg Gly Val Phe Phe Ser Val Asn Ser Trp Thr Pro Asp Ser Met Ser Phe Ile Tyr Lys Ala Leu Glu Arg Asn Ile Arg Thr Met Phe Ile Gly Gly Ser Gln Leu Ser Gln Lys His Val Ser Ser Pro Leu Ala Ser Tyr Phe Leu Ser Phe Pro Tyr Ala Arg Leu Gly Trp Ala Met Thr Ser Ala Asp Leu Asn Gln Asp Gly His Gly Asp Leu Val Val Gly Ala Pro Gly Tyr Ser Arg Pro Gly His Ile His Ile Gly Arg Val Tyr Leu Ile Tyr Gly Asn Asp Leu Gly Leu Pro Pro Val Asp Leu Asp Leu Asp Lys Glu Ala His Arg Ile Leu Glu Gly Phe Gln Pro Ser Gly Arg Phe Gly Ser Ala Leu Ala Val Leu Asp Phe Asn Val Asp Gly Val Pro Asp Leu Ala Val Gly Ala Pro Ser Val Gly Ser Glu Gln Leu Thr Tyr Lys Gly Ala Val Tyr Val Tyr Phe Gly Ser Lys Gln Gly Gly Met Ser Ser Ser Pro Asn Ile Thr Ile Ser Cys Gln Asp Ile

Tyr Cys Asn Leu Gly Trp Thr Leu Leu Ala Ala Asp Val Asn Gly Asp 570 Ser Glu Pro Asp Leu Val Ile Gly Ser Pro Phe Ala Pro Gly Gly Gly 585 Lys Gln Lys Gly Ile Val Ala Ala Phe Tyr Ser Gly Pro Ser Leu Ser 600 Asp Lys Glu Lys Leu Asn Val Glu Ala Ala Asn Trp Thr Val Arg Gly 615 620 Glu Glu Asp Phe Ser Trp Phe Gly Tyr Ser Leu His Gly Val Thr Val 630 635 Asp Asn Arg Thr Leu Leu Leu Val Gly Ser Pro Thr Trp Lys Asn Ala 645 650 Ser Arg Leu Gly His Leu Leu His Ile Arg Asp Glu Lys Lys Ser Leu 665 Gly Arg Val Tyr Gly Tyr Phe Pro Pro Asn Gly Gln Ser Trp Phe Thr 680 Ile Ser Gly Asp Lys Ala Met Gly Lys Leu Gly Thr Ser Leu Ser Ser 695 Gly His Val Leu Met Asn Gly Thr Leu Lys Gln Val Leu Leu Val Gly 710 715 Ala Pro Thr Tyr Asp Asp Val Ser Lys Val Ala Phe Leu Thr Val Thr 725 730 Leu His Gln Gly Gly Ala Thr Arg Met Tyr Ala Leu Thr Ser Asp Ala 745 Gln Pro Leu Leu Ser Thr Phe Ser Gly Asp Arg Arg Phe Ser Arg 760 Phe Gly Gly Val Leu His Leu Ser Asp Leu Asp Asp Asp Gly Leu Asp 775 780 Glu Ile Ile Met Ala Ala Pro Leu Arg Ile Ala Asp Val Thr Ser Gly 790 795 Leu Ile Gly Gly Glu Asp Gly Arg Val Tyr Val Tyr Asn Gly Lys Glu 810 Thr Thr Leu Gly Asp Met Thr Gly Lys Cys Lys Ser Trp Ile Thr Pro 820 825 Cys Pro Glu Glu Lys Ala Gln Tyr Val Leu Ile Ser Pro Glu Ala Ser 840 Ser Arg Phe Gly Ser Ser Leu Ile Thr Val Arg Ser Lys Ala Lys Asn 855 Gln Val Val Ile Ala Ala Gly Arg Ser Ser Leu Gly Ala Arg Leu Ser 870 875 Gly Ala Leu His Val Tyr Ser Leu Gly Ser Asp

<210> 1322 <211> 119 <212>Amino acid <213> Homo sapiens

Glu Gly Leu Arg Asn Ala Leu Gln Gln Glu Asn His Ile 1le Asp Gly
85
90
95
Val Lys Val Gln Val His Thr Arg Arg Pro Lys Leu Pro Gln Thr Ser
100
105
Asp Asp Glu Lys Lys Asp Phe
119
119

<210> 1323 <211> 257 <212>Amino acid <213> Homo sapiens

<400> 1323 Gly Ser Ser Asn Ile His Ser Ala Ser Thr His Gly Phe Cys His Trp Phe Ser Ser Pro Ser Thr Leu Lys Arg Gln Lys Gln Ala Ile Arg Phe Gln Lys Ile Arg Arg Gln Met Glu Ala Pro Gly Ala Pro Pro Arg Thr 40 Leu Thr Trp Glu Ala Met Glu Gln Ile Arg Tyr Leu His Glu Glu Phe 55 Pro Glu Ser Trp Ser Val Pro Arg Leu Ala Glu Gly Phe Asp Val Ser 70 75 Thr Asp Val Ile Arg Arg Val Leu Lys Ser Lys Phe Leu Pro Thr Leu 90 Glu Gln Lys Leu Lys Gln Asp Gln Lys Val Leu Lys Lys Ala Gly Leu 105 Ala His Ser Leu Gln His Leu Arg Gly Ser Gly Asn Thr Ser Lys Leu 120 Leu Pro Ala Gly His Ser Val Ser Gly Ser Leu Leu Met Pro Gly His 135 Glu Ala Ser Ser Lys Asp Pro Asn His Ser Thr Ala Leu Lys Val Ile 150 155 Glu Ser Asp Thr His Arg Thr Asn Thr Pro Arg Arg Arg Lys Gly Arg 165 170 Asn Lys Glu Ile Gln Asp Leu Glu Glu Ser Phe Val Pro Val Ala Ala 180 185 Pro Leu Gly His Pro Arg Glu Leu Gln Lys Tyr Ser Ser Asp Ser Glu 200 Ser Pro Arg Gly Thr Gly Ser Gly Ala Leu Pro Ser Gly Gln Lys Leu 215 Glu Glu Leu Lys Ala Glu Glu Pro Asp Asn Phe Ser Ser Lys Val Val 230 235 Gln Arg Gly Arg Glu Phe Phe Asp Ser Asn Gly Asn Phe Leu Tyr Arg 245 255 Ile

824

<210> 1324 <211> 273 <212>Amino acid

<212>Amino acid <213> Homo sapiens

<400> 1324

Glu Thr Arg Val Lys Thr Ser Leu Glu Leu Leu Arg Thr Gln Leu Glu 10 Pro Thr Gly Thr Val Gly Asn Thr Ile Met Thr Ser Gln Pro Val Pro 25 Asn Glu Thr Ile Ile Val Leu Pro Ser Asn Val Ile Asn Phe Ser Gln Ala Glu Lys Pro Glu Pro Thr Asn Gln Gly Gln Asp Ser Leu Lys Lys 55 60 His Leu His Ala Glu Ile Lys Val Ile Gly Thr Ile Gln Ile Leu Cys 75 Gly Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe 90 Ser Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tvr 105 Pro Phe Ile Gly Pro Phe Phe Phe Ile Ile Ser Gly Ser Leu Ser Ile 120 Ala Thr Glu Lys Arg Leu Thr Lys Leu Leu Val His Ser Ser Leu Val 135 Gly Ser Ile Leu Ser Ala Leu Ser Ala Leu Val Gly Phe Ile Ile Leu 150 155 Ser Val Lys Gln Ala Thr Leu Asn Pro Ala Ser Leu Gln Cys Glu Leu 165 170 Asp Lys Asn Asn Ile Pro Thr Arg Ser Tyr Val Ser Tyr Phe Tyr His 185 Asp Ser Leu Tyr Thr Thr Asp Cys Tyr Thr Ala Lys Ala Ser Leu Ala 200 Gly Thr Leu Ser Leu Met Leu Ile Cys Thr Leu Leu Glu Phe Cys Leu 215 220 Ala Val Leu Thr Ala Val Leu Arg Trp Lys Gln Ala Tyr Ser Asp Phe 230 235 Pro Gly Ser Val Leu Phe Leu Pro His Ser Tyr Ile Gly Asn Ser Gly 245 250 Met Ser Ser Lys Met Thr His Asp Cys Gly Tyr Glu Glu Leu Leu Thr 260 Ser 273

<210> 1325 <211> 477 <212>Amino acid <213> Homo sapiens

<400> 1325 Glu Met Val Gly Ala Met Trp Lys Val Ile Val Ser Leu Val Leu Leu Met Pro Gly Pro Cys Asp Gly Leu Phe Arg Ser Leu Tyr Arg Ser Val 25 Ser Met Pro Pro Lys Gly Asp Ser Gly Gln Pro Leu Phe Leu Thr Pro Tyr Ile Glu Ala Gly Lys Ile Gln Lys Gly Arg Glu Leu Ser Leu Val 55 Gly Pro Phe Pro Gly Leu Asn Met Lys Ser Tyr Ala Gly Phe Leu Thr 75 Val Asn Lys Thr Tyr Asn Ser Asn Leu Phe Phe Trp Phe Phe Pro Ala 90 Gln Ile Gln Pro Glu Asp Ala Pro Val Val Leu Trp Leu Gln Gly Gly 105 Pro Gly Gly Ser Ser Met Phe Gly Leu Phe Val Glu His Gly Pro Tyr 120

Val Val Thr Ser Asn Met Thr Leu Arg Asp Arg Asp Phe Pro Trp Thr 135 Thr Thr Leu Ser Met Leu Tyr Ile Asp Asn Pro Val Gly Thr Gly Phe 150 155 Ser Phe Thr Asp Asp Thr His Gly Tyr Ala Val Asn Glu Asp Asp Val 165 Ala Arg Asp Leu Tyr Ser Ala Leu Ile Gln Phe Phe Gln Ile Phe Pro 185 Glu Tyr Lys Asn Asn Asp Phe Tyr Val Thr Gly Glu Ser Tyr Ala Gly 195 200 Lys Tyr Val Pro Ala Ile Ala His Leu Ile His Ser Leu Asn Pro Val 215 220 Arg Glu Val Lys Ile Asn Leu Asn Gly Ile Ala Ile Gly Asp Gly Tyr 230 235 Ser Asp Pro Glu Ser Ile Ile Gly Gly Tyr Ala Glu Phe Leu Tyr Gln 245 250 255 Ile Gly Leu Leu Asp Glu Lys Gln Lys Lys Tyr Phe Gln Lys Gln Cys 260 265 270 His Glu Cys Ile Glu His Ile Arg Lys Gln Asn Trp Phe Glu Ala Phe 275 280 285 Glu Ile Leu Asp Lys Leu Leu Asp Gly Asp Leu Thr Ser Asp Pro Ser 295 300 Tyr Phe Gln Asn Val Thr Gly Cys Ser Asn Tyr Tyr Asn Phe Leu Arg 315 310 Cys Thr Glu Pro Glu Asp Gln Leu Tyr Tyr Val Lys Phe Leu Ser Leu 325 330 Pro Glu Val Arg Gln Ala Ile His Val Gly Asn Gln Thr Phe Asn Asp 340 345 Gly Thr Ile Val Glu Lys Tyr Leu Arg Glu Asp Thr Val Gln Ser Val 360 365 Lys Pro Trp Leu Thr Glu Ile Met Asn Asn Tyr Lys Val Leu Ile Tyr 375 380 Asn Gly Gln Leu Asp Ile Ile Val Ala Ala Ala Leu Thr Glu Arg Ser 390 395 Leu Met Gly Met Asp Trp Lys Gly Ser Gln Glu Tyr Lys Lys Ala Glu 410 Lys Lys Val Trp Lys Ile Phe Lys Ser Asp Ser Glu Val Ala Gly Tyr 425 Ile Arg Gln Ala Gly Asp Phe His Gln Val Ile Ile Arg Gly Gly 440 445 His Ile Leu Pro Tyr Asp Gln Pro Leu Arg Ala Phe Asp Met Ile Asn 455 460 Arg Phe Ile Tyr Gly Lys Gly Trp Asp Pro Tyr Val Gly 470 475 477

<210> 1326 <211> 160 <212>Amino acid <213> Homo sapiens

Leu Asn Lys Trp Val Ile Pro Glu Leu Ile Gly His Thr Ile Val Thr 70 75 Val Leu Leu Met Ser Leu His Trp Phe Ile Phe Leu Leu Asn Leu 90 Pro Val Ala Thr Trp Asn Ile Tyr Arg Tyr Ile Met Val Pro Ser Gly 100 105 Asn Met Gly Val Phe Asp Pro Thr Glu Ile His Asn Arg Gly Gln Leu 115 120 Lys Ser His Met Lys Glu Ala Met Ile Lys Leu Gly Phe His Leu Leu 135 140 Cys Phe Phe Met Tyr Leu Tyr Ser Met Ile Leu Ala Leu Ile Asn Asp 150 155

<210> 1327 <211> 131 <212>Amino acid <213> Homo sapiens

<400> 1327 Gln Ser Pro Gly His Gly Ala Pro Cys Gln Leu Ser Ser Ser His Ser 10 Arg Ser Asn Arg Leu Leu Ser Pro Met Ala Arg Ala Thr Leu Ser Ala 20 25 Ala Pro Ser Asn Pro Arg Leu Leu Arg Val Ala Leu Leu Leu Leu Leu 40 Leu Val Ala Ala Ser Arg Arg Ala Ala Gly Ala Pro Leu Ala Thr Glu 55 Leu Arg Cys Gln Cys Leu Gln Thr Leu Gln Gly Ile His Leu Lys Asn 70 75 Ile Gln Ser Val Lys Val Lys Ser Pro Gly Pro His Cys Ala Gln Thr 85 90 Glu Val Ile Ala Thr Leu Lys Asn Gly Gln Lys Ala Cys Leu Asn Pro 100 105 Ala Ser Pro Met Val Lys Lys Ile Ile Glu Lys Met Leu Lys Asn Gly 115 120 Lys Ser Asn 130 131

<210> 1328 <211> 44 <212>Amino acid <213> Homo sapiens

Cys Thr Pro Val Ala Arg Ser Met Ala Thr Thr Ala Thr Cys Thr Arg

<210> 1329 <211> 525

<212>Amino acid

<213> Homo sapiens

<400> 1329

420

10 Phe Thr Asp Asp Tyr Gln Leu Phe Glu Glu Leu Gly Lys Gly Ala Phe 25 Ser Val Val Arg Arg Cys Val Lys Lys Thr Ser Thr Gln Glu Tyr Ala 40 Ala Lys Ile Ile Asn Thr Lys Lys Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg Glu Ala Arg Ile Cys Arg Leu Leu Lys His Pro Asn Ile Val Arg Leu His Asp Ser Ile Ser Glu Glu Gly Phe His Tyr Leu Val 90 Phe Asp Leu Val Thr Gly Gly Glu Leu Phe Glu Asp Ile Val Ala Arg 105 Glu Tyr Tyr Ser Glu Ala Asp Ala Ser His Cys Ile His Gln Ile Leu 120 Glu Ser Val Asn His Ile His Gln His Asp Ile Val His Arg Asp Leu 135 140 Lys Pro Glu Asn Leu Leu Leu Ala Ser Lys Cys Lys Gly Ala Ala Val 150 155 Lys Leu Ala Asp Phe Gly Leu Ala Ile Glu Val Gln Gly Glu Gln Gln 165 170 Ala Trp Phe Gly Phe Ala Gly Thr Pro Gly Tyr Leu Ser Pro Glu Val 185 Leu Arg Lys Asp Pro Tyr Gly Lys Pro Val Asp Ile Trp Ala Cys Gly 200 Val Ile Leu Tyr Ile Leu Leu Val Gly Tyr Pro Pro Phe Trp Asp Glu 215 Asp Gln His Lys Leu Tyr Gln Gln Ile Lys Ala Gly Ala Tyr Asp Phe 230 Pro Ser Pro Glu Trp Asp Thr Val Thr Pro Glu Ala Lys Asn Leu Ile 245 250 Asn Gln Met Leu Thr Ile Asn Pro Ala Lys Arg Ile Thr Ala Asp Gln 265 Ala Leu Lys His Pro Trp Val Cys Gln Arg Ser Thr Val Ala Ser Met 280 Met His Arg Gln Glu Thr Val Glu Cys Leu Arg Lys Phe Asn Ala Arg 295 300 Arg Lys Leu Lys Gly Ala Ile Leu Thr Thr Met Leu Val Ser Arg Asn 310 315 Phe Ser Ala Ala Lys Ser Leu Leu Asn Lys Lys Ser Asp Gly Gly Val 330 325 Lys Pro Gln Ser Asn Asn Lys Asn Ser Leu Val Ser Pro Ala Gln Glu 345 350 Pro Ala Pro Leu Gln Thr Ala Met Glu Pro Gln Thr Thr Val Val His 360 365 Asn Ala Thr Asp Gly Ile Lys Gly Ser Thr Glu Ser Cys Asn Thr Thr 375 Thr Glu Asp Glu Asp Leu Lys Val Arg Lys Gln Glu Ile Ile Lys Ile 390 395 Thr Glu Gln Leu Ile Glu Ala Ile Asn Asn Gly Asp Phe Glu Ala Tyr 405 410 Thr Lys Ile Cys Asp Pro Gly Leu Thr Ser Phe Glu Pro Glu Ala Leu

<210> 1330 <211> 205 <212>Amino acid <213> Homo sapiens

<400> 1330 Asn Arg Arg Thr Val Lys Met Leu Leu Glu Leu Ser Glu Glu His Lys 10 Glu His Leu Ala Phe Leu Pro Gln Val Asp Ser Ala Val Val Ala Glu 20 25 Phe Gly Arg Ile Ala Val Glu Phe Leu Arg Arg Gly Ala Asn Pro Lys 40 Ile Tyr Glu Gly Ala Ala Arg Lys Leu Asn Val Ser Ser Asp Thr Val 55 Gln His Gly Val Glu Gly Leu Thr Tyr Leu Leu Thr Glu Ser Ser Lys Leu Met Ile Ser Glu Leu Asp Phe Gln Asp Ser Val Phe Val Leu Gly 90 Phe Ser Glu Glu Leu Asn Lys Leu Leu Leu Gln Leu Tyr Leu Asp Asn 105 Arg Lys Glu Ile Arg Thr Ile Leu Ser Glu Leu Ala Pro Ser Leu Pro 120 Ser Tyr His Asn Leu Glu Trp Arg Leu Asp Val Gln Leu Ala Ser Arg 135 140 Ser Leu Arg Gln Gln Ile Lys Pro Ala Val Thr'Ile Lys Leu His Leu 150 155 Asn Gln Asn Gly Asp His Asn Thr Lys Val Leu Gln Thr Asp Pro Ala 170 165 Thr Leu Leu His Leu Val Gln Gln Leu Glu Gln Ala Leu Glu Glu Met 180 185 190 Lys Thr Asn His Cys Arg Arg Val Val Arg Asn Ile Lys 200

<210> 1331 <211> 78

<212>Amino acid

<213> Homo sapiens

<400> 1331 Gly Thr Ser Ile Tyr Leu Ala His Arg Val Ala Arg Ala Trp Glu Leu 1 5 10 15

<210> 1332 <211> 274 <212>Amino acid <213> Homo sapiens

<400> 1332 Arg Gly Cys Gly Ser Cys Gly Tyr Lys Pro Ser Ala Gly Pro Ala Trp 10 Arg Pro Arg Pro Pro Pro Ala Val Ser Pro Leu Arg His Pro Glu Pro 20 Ala Lys Val Leu Ser Phe Ser Ser Cys Pro Leu Pro Ala Leu Gly Arg 40 . Thr Gly Pro Ser Arg Ala Ala Arg Ala Gln Ser Leu Thr Met Ala Ser 55 Leu Phe Lys Lys Lys Thr Val Asp Asp Val Ile Lys Glu Gln Asn Arg 7.0 75 Glu Leu Arg Gly Thr Gln Arg Ala Ile Ile Arg Asp Arg Ala Ala Leu 90 Glu Lys Gln Glu Lys Gln Leu Glu Leu Glu Ile Lys Lys Met Ala Lys 105 Ile Gly Asn Lys Glu Ala Cys Lys Val Leu Ala Lys Gln Leu Val His 120 Leu Arg Lys Gln Lys Thr Arg Thr Phe Ala Val Ser Ser Lys Val Thr 135 140 Ser Met Ser Thr Gln Thr Lys Val Met Asn Ser Gln Met Lys Met Ala 150 155 Gly Ala Met Ser Thr Thr Ala Lys Thr Met Gln Ala Val Asn Lys Lys 165 170 Met Asp Pro Gln Lys Thr Leu Gln Thr Met Gln Asn Phe Gln Lys Glu 180 185 Asn Met Lys Met Glu Met Thr Glu Glu Met Ile Asn Asp Thr Leu Asp 200 Asp Ile Phe Asp Gly Ser Asp Asp Glu Glu Glu Ser Gln Asp Ile Val 215 Asn Gln Val Leu Asp Glu Ile Gly Ile Glu Ile Ser Gly Lys Met Ala 230 235 Lys Ala Pro Ser Ala Ala Arg Ser Leu Pro Ser Ala Ser Thr Ser Lys 245 250 Ala Thr Ile Ser Asp Glu Glu Ile Glu Arg Gln Leu Lys Ala Leu Gly 265 Val Asp

274 <210> 1333

<211> 157 <212>Amino acid <213> Homo sapiens

<400> 1333 Ser Thr Asp Gly Asn Gly Ala Glu Arg Leu Phe Ala Glu Leu Arg Lys Met Asn Ala Arg Gly Leu Gly Ser Glu Leu Lys Asp Ser Ile Pro Val 25 Thr Glu Leu Ser Ala Ser Gly Pro Phe Glu Ser His Asp Leu Leu Arq Lys Gly Phe Ser Cys Val Lys Asn Glu Leu Leu Pro Ser His Pro Leu 55 Glu Leu Ser Glu Lys Asn Phe Gln Leu Asn Gln Asp Lys Mct Asn Phe 70 75 Ser Thr Leu Arg Asn Ile Gln Gly Leu Phe Ala Pro Leu Lys Leu Gln 85 90 Met Glu Phe Lys Ala Val Gln Gln Val Gln Arg Leu Pro Phe Leu Ser 100 105 Ser Ser Asn Leu Ser Leu Asp Val Leu Arg Gly Asn Asp Glu Thr Ile 120 Gly Phe Glu Asp Ile Leu Asn Asp Pro Ser Gln Ser Glu Val Met Gly 135 140 Glu Pro His Leu Met Val Glu Tyr Lys Leu Gly Leu Leu 150 155 157

<210> 1334 <211> 193 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(193)
<223> X = any amino acid or stop code

<400> 1334 Arg Asn Met Lys Leu His Tyr Val Ala Val Leu Thr Leu Ala Ile Leu 10 Met Phe Leu Thr Trp Leu Pro Glu Ser Leu Ser Cys Asn Lys Ala Leu 25 Cys Ala Ser Asp Val Ser Lys Cys Leu Ile Gln Glu Leu Cys Gln Cys Arg Pro Gly Glu Gly Asn Cys Ser Cys Cys Lys Glu Cys Met Leu Cys Leu Gly Ala Leu Trp Asp Glu Cys Cys Asp Cys Val Gly Met Cys Asn Pro Arg Asn Tyr Ser Asp Thr Pro Pro Thr Ser Lys Ser Thr Val Glu Glu Leu His Glu Pro Ile Pro Ser Leu Phe Arg Ala Leu Thr Glu Gly 100 105 Asp Thr Gln Leu Asn Trp Asn Ile Val Ser Phe Pro Val Ala Glu Glu 120 125 Leu Ser His His Glu Asn Leu Val Ser Phe Leu Glu Thr Val Asn Gln 135 140 Pro His His Gln Asn Val Ser Val Pro Ser Asn Asn Val His Ala Pro 150 155 Tyr Ser Ser Asp Lys Glu Xaa Leu Pro Thr Val Asp Phe Phe His Ser 165 170 Ala Pro Ser Cys Gly Leu Ser Met Xaa Ser Ile Ile Phe Phe Glu Glu

180 185 190

Thr 193

> <210> 1335 <211> 179 <212>Amino acid <213> Homo sapiens

<400> 1335 Val Gly Gly Val Pro Thr Trp Leu Glu Gly Cys Gly Ser Gly Asn Pro 1 5 10 Ser Pro Arg Ser Gly Gly Gly Pro Gly Ala Arg Leu Thr Leu Pro Ala Leu Gln Met Thr Val His Asn Leu Tyr Leu Phe Asp Arg Asn Gly Val 40 Cys Leu His Tyr Ser Glu Trp His Arg Lys Lys Gln Ala Gly Ile Pro 55 Lys Glu Glu Glu Tyr Lys Leu Met Tyr Gly Met Leu Phe Ser Ile Arg 65 70 75 Ser Phe Val Ser Lys Met Ser Pro Leu Asp Met Lys Asp Gly Phe Leu 90 Ala Phe Gln Thr Ser Arg Tyr Lys Leu His Tyr Tyr Glu Thr Pro Thr 105 Gly Ile Lys Val Val Met Asn Thr Asp Leu Gly Val Gly Pro Ile Arg 120 125 Asp Val Leu His His Ile Tyr Ser Ala Leu Tyr Val Glu Leu Val Val 135 140 Lys Asn Pro Leu Cys Pro Leu Gly Gln Thr Val Gln Ser Glu Leu Phe 150 155 Arg Ser Arg Leu Asp Ser Tyr Val Arg Ser Leu Pro Phe Phe Ser Ala 170 Arg Ala Glv 179

<210> 1336 <211> 236 <212>Amino acid <213> Homo sapiens

<400> 1336 Pro Gly Leu Ser Gln Glu Pro Ser Gly Ser Met Glu Thr Val Val Ile 10 Val Ala Ile Gly Val Leu Ala Thr Ile Phe Leu Ala Ser Phe Ala Ala 25 30 Leu Val Leu Val Cys Arg Gln Arg Tyr Cys Arg Pro Arg Asp Leu Leu 40 45 Gln Arg Tyr Asp Ser Lys Pro Ile Val Asp Leu Ile Gly Ala Met Glu 55 60 Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu Asp Asp Val Val Ile Thr 70 75 Asn Pro His Ile Glu Ala Ile Leu Glu Asn Glu Asp Trp Ile Glu Asp 90 Ala Ser Gly Leu Met Ser His Cys Ile Ala Ile Leu Lys Ile Cys His

105 Thr Leu Thr Glu Lys Leu Val Ala Met Thr Met Gly Ser Gly Ala Lys 120 Met Lys Thr Ser Ala Ser Val Ser Asp Ile Ile Val Val Ala Lys Arg 130 135 140 Ile Ser Pro Arg Val Asp Asp Val Val Lys Ser Met Tyr Pro Pro Leu 150 155 Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr Ala Leu Leu Leu Ser Val 165 170 Ser His Leu Val Leu Val Thr Arg Asn Ala Cys His Leu Thr Gly Gly 180 185 Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala Ala Glu Glu His Leu Glu 200 Val Leu Arg Glu Ala Ala Leu Ala Ser Glu Pro Asp Lys Gly Leu Pro 215 220 Gly Pro Glu Gly Phe Leu Gln Glu Gln Ser Ala Ile 225 230

<210> 1337 <211> 161 <212>Amino acid <213> Homo sapiens

<400> 1337 Val Gly Met Glu Leu Pro Ala Val Asn Leu Lys Val Ile Leu Leu Gly 5 10 His Trp Leu Leu Thr Thr Trp Gly Cys Ile Val Phe Ser Gly Ser Tyr 20 25 Ala Trp Ala Asn Phe Thr Ile Leu Ala Leu Gly Val Trp Ala Val Ala 40 Gln Arg Asp Ser Ile Asp Ala Ile Ser Met Phe Leu Gly Gly Leu Leu 55 Ala Thr Ile Phe Leu Asp Ile Val His Ile Ser Ile Phe Tyr Pro Arg 70 Val Ser Leu Thr Asp Thr Gly Arg Phe Gly Val Gly Met Ala Ile Leu 85 Ser Leu Leu Lys Pro Leu Ser Cys Cys Phe Val Tyr His Met Tyr 100 105 Arg Glu Arg Gly Gly Glu Leu Leu Val His Thr Gly Phe Leu Gly Ser 115 120 125 Ser Gln Asp Arg Ser Ala Tyr Gln Thr Ile Asp Ser Ala Glu Ala Pro 135 140 Ala Asp Pro Phe Ala Val Pro Glu Gly Arg Ser Gln Asp Ala Arg Gly 150 155 Tyr 161

<210> 1338 <211> 200 <212>Amino acid <213> Homo sapiens

 $^{<400>}$ 1338 Pro Ala Ser Arg Pro Leu Leu Gly Pro Asp Thr Gly Ser Val Ala Asn

10 Ile Phe Lys Gly Leu Val Ile Leu Pro Glu Met Ser Leu Val Ile Arg 25 Asn Leu Gln Arg Val Ile Pro Ile Arg Arg Ala Pro Leu Arg Ser Lys 40 Ile Glu Ile Val Arg Arg Ile Leu Gly Val Gln Lys Phe Asp Leu Gly Ile Ile Cys Val Asp Asn Lys Asn Ile Gln His Ile Asn Arg Ile Tyr 75 Arg Asp Arg Asn Val Pro Thr Asp Val Leu Ser Phe Pro Phe His Glu 85 90 His Leu Lys Ala Gly Glu Phe Pro Gln Pro Asp Phe Pro Asp Asp Tyr 105 Asn Leu Gly Asp Ile Phe Leu Gly Val Glu Tyr Ile Phe His Gln Cys 120 Lys Glu Asn Glu Asp Tyr Asn Asp Val Leu Thr Val Thr Ala Thr His 130 . 135 Gly Leu Cys His Leu Leu Gly Phe Thr His Gly Thr Glu Ala Glu Trp 150 155 Gln Gln Met Phe Gln Lys Glu Lys Ala Val Leu Asp Glu Leu Gly Arg 170 Arg Thr Gly Thr Arg Leu Gln Pro Leu Thr Pro Gly Pro Leu Pro Glu 180 185 Gly Ala Glu Gly Arg Val Pro Phe

<210> 1339 <211> 267

<212>Amino acid <213> Homo sapiens

<400> 1339 Leu Arg Asn Ala Leu Asp Val Leu His Arg Glu Val Pro Arg Val Leu Val Asn Leu Val Asp Phe Leu Asn Pro Thr Ile Met Arg Gln Val Phe 25 Leu Gly Asn Pro Asp Lys Cys Pro Val Gln Gln Ala Met Leu Glu Pro 40 Leu Gly Ser Lys Thr Glu Thr Leu Asp Leu Arg Ala Glu Met Pro Ile 55 Thr Cys Pro Thr Gln Asn Glu Pro Phe Leu Arg Thr Pro Arg Asn Ser 70 Asn Tyr Thr Tyr Pro Ile Lys Pro Ala Ile Glu Asn Trp Gly Ser Asp Phe Leu Cys Thr Glu Trp Lys Ala Ser Asn Ser Val Pro Thr Ser Val 105 His Gln Leu Arg Pro Ala Asp Ile Lys Val Val Ala Ala Leu Gly Asp 120 125 Ser Leu Thr Thr Ala Val Gly Ala Arg Pro Asn Asn Ser Ser Asp Leu 135 140 Pro Thr Ser Trp Arg Gly Leu Ser Trp Ser Ile Gly Gly Asp Gly Asn 150 155 Leu Glu Thr His Thr Thr Leu Pro Asn Ile Leu Lys Lys Phe Asn Pro 165 170 Tyr Leu Leu Gly Phe Ser Thr Ser Thr Trp Glu Gly Thr Ala Gly Leu 185 Asn Val Ala Ala Glu Gly Ala Arg Ala Arg Asp Met Pro Ala Gln Ala 200 Trp Asp Leu Val Glu Arg Met Lys Asn Ser Pro Asp Ile Asn Leu Glu

<210> 1340 <211> 286 <212>Amino acid <213> Homo sapiens

<400> 1340 Val Val Glu Phe Leu Trp Ser Arg Arg Pro Ser Gly Ser Ser Asp Pro 5 Arg Pro Arg Pro Ala Ser Lys Cys Gln Met Met Glu Glu Arg Ala Asn Leu Met His Met Met Lys Leu Ser Ile Lys Val Leu Leu Gln Ser 40 Ala Leu Ser Leu Gly Arg Ser Leu Asp Ala Asp His Ala Pro Leu Gln 55 Gln Phe Phe Val Val Met Glu His Cys Leu Lys His Gly Leu Lys Val 70 Lys Lys Ser Phe Ile Gly Gln Asn Lys Ser Phe Phe Gly Pro Leu Glu 90 Leu Val Glu Lys Leu Cys Pro Glu Ala Ser Asp Ile Ala Thr Ser Val 105 Arg Asn Leu Pro Glu Leu Lys Thr Ala Val Gly Arg Gly Arg Ala Trp 120 Leu Tyr Leu Ala Leu Met Gln Lys Lys Leu Ala Asp Tyr Leu Lys Val 135 140 Leu Ile Asp Asn Lys His Leu Leu Ser Glu Phe Tyr Glu Pro Glu Ala 150 155 Leu Met Met Glu Glu Glu Gly Met Val Ile Val Gly Leu Leu Val Gly 170 Leu Asn Val Leu Asp Ala Asn Leu Cys Leu Lys Gly Glu Asp Leu Asp 185 Ser Gln Val Gly Val Ile Asp Phe Ser Leu Tyr Leu Lys Asp Val Gln 200 Asp Leu Asp Gly Gly Lys Glu His Glu Arg Ile Thr Asp Val Leu Asp 215 220 Gln Lys Asn Tyr Val Glu Glu Leu Asn Arg His Leu Ser Cys Thr Val 230 235 Gly Asp Leu Gln Thr Lys Ile Asp Gly Leu Glu Lys Thr Asn Ser Lys 245 250 Leu Gln Glu Arg Val Ser Ala Ala Thr Asp Arg Ile Cys Ser Leu Gln 260 265 Glu Glu Gln Gln Leu Arg Glu Gln Asn Glu Leu Ile Arg 275 -280

<210> 1341 <211> 233 <212>Amino acid <213> Homo sapiens

<400> 1341 Lys Pro Glu Gly Ala Arg Arg Val Gln Phe Val Met Gly Leu Phe Gly 10 Lys Thr Gln Glu Lys Pro Pro Lys Glu Leu Val Asn Glu Trp Ser Leu 25 Lys Ile Arg Lys Glu Met Arg Val Val Asp Arg Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val Lys Asp Ala Ala Lys 55 Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala Lys Glu Met Ile Arg 70 Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser Lys Ala His Met Asn 85 90 Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala Val Leu Arg Val Ala 100 105 Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys Ala Met Gln Ser Leu 120 Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg Glu Leu Ser Lys Glu 135 140 Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu Glu Asp Thr Phe Glu 150 155 Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu Ala Glu Met Glu Ile 165 170 Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala Leu Gly Lys Ala Pro 185 Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu Pro Pro Gly Ala Met 200 205 Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu Ala Leu Glu Ala Met 215 Gln Ser Arg Leu Ala Thr Leu Arg Ser 230 233

<210> 1342 <211> 150 <212>Amino acid <213> Homo sapiens

<400> 1342 Arg Trp Asn Ser Ile Met Glu Leu Ala Leu Leu Cys Gly Leu Val Val Met Ala Gly Val Ile Pro Ile Gln Gly Gly Ile Leu Asn Leu Asn Lys 20 Met Val Lys Gln Val Thr Gly Lys Met Pro Ile Leu Ser Tyr Trp Pro Tyr Gly Cys His Cys Gly Leu Gly Gly Arg Gly Gln Pro Lys Asp Ala 55 Thr Asp Trp Cys Cys Gln Thr His Asp Cys Cys Tyr Asp His Leu Lys 70 75 Thr Gln Gly Cys Gly Ile Tyr Lys Asp Tyr Tyr Arg Tyr Asn Phe Ser 85 90 Gln Gly Asn Ile His Cys Ser Asp Lys Gly Ser Trp Cys Glu Gln Gln 100 105 Leu Cys Ala Cys Asp Lys Glu Val Ala Phe Cys Leu Lys Arg Asn Leu 120 125 Asp Thr Tyr Gln Lys Arg Leu Arg Phe Tyr Trp Arg Pro His Cys Arg 135 140 Gly Gln Thr Pro Gly Cys

145 150

<210> 1343 <211> 127 <212>Amino acid <213> Homo sapiens

<400> 1343 Lys Thr Val Ala Glu Glu Ala Ser Val Gly Asn Pro Glu Gly Ala Phe 10 Met Lys Met Leu Gln Ala Arg Lys Gln His Met Ser Thr Glu Leu Thr Ile Glu Ser Glu Ala Pro Ser Asp Ser Ser Gly Ile Asn Leu Ser Gly 4.0 Phe Gly Ser Glu Gln Leu Asp Thr Asn Asp Glu Ser Asp Val Ser Ser Ala Leu Ser Tyr Ile Leu Pro Tyr Leu Ser Leu Arg Asn Leu Gly Ala 70 75 Glu Ser Ile Leu Leu Pro Phe Thr Glu Gln Leu Phe Ser Asn Val Gln 85 9.0 Asp Gly Asp Arg Leu Leu Ser Ile Leu Lys Asn Asn Arg Lys Ser Pro 105 Ser Gln Ser Ser Leu Leu Gly Asn Lys Phe Lys Asn Lys Ile Phe 120 125

<210> 1344 <211> 126 <212>Amino acid <213> Homo sapiens

<400> 1344 Leu Pro Leu Thr Leu Leu Leu Ala Ala Pro Phe Ala His Leu Leu Leu Pro Pro Gly His Asp Gln Ser Pro Cys Trp His Pro Gly Pro Ala Leu Ser Pro Gly Thr Leu Gly Pro Leu Ser Trp Ala Met Ala Asn Ser Gly Leu Gln Leu Leu Gly Tyr Phe Leu Ala Leu Gly Gly Trp Val Gly Ile 55 60 Ile Ala Ser Thr Ala Leu Pro Gln Trp Lys Gln Ser Ser Tyr Ala Gly 75 Asp Ala Ser Ile Gln Leu Arg Ser Lys Val Phe Val Leu Glu Ser Glu 85 90 Trp Gly Gly Asp Ser Leu Gly Leu Pro Arg Asp Cys Gly Trp Ser Cys 100 105 110 Leu Leu His Ser Ala Val Arg Ser Glu Lys Gly Phe Trp Ser 115 120

<210> 1345 <211> 328 <212>Amino acid <213> Homo sapiens

<400> 1345 Asp Pro Arg Val Arg Pro Pro Leu Leu Gln Pro Pro Pro Pro Leu Leu 10 Pro Arg Leu Val Ile Leu Lys Met Ala Pro Leu Asp Leu Asp Lys Tyr 25 Val Glu Ile Ala Arg Leu Cys Lys Tyr Leu Pro Glu Asn Asp Leu Lys 3.5 4.0 Arg Leu Cys Asp Tyr Val Cys Asp Leu Leu Leu Glu Glu Ser Asn Val 55 Gln Pro Val Ser Thr Pro Val Thr Val Cys Gly Asp Ile His Gly Gln 70 Phe Tyr Asp Leu Cys Glu Leu Phe Arg Thr Gly Gly Gln Val Pro Asp 85 90 Thr Asn Tyr Ile Phe Met Gly Asp Phe Val Asp Arg Gly Tyr Tyr Ser 105 Leu Glu Thr Phe Thr Tyr Leu Leu Ala Leu Lys Ala Lys Trp Pro Asp 120 125 Arg Ile Thr Leu Leu Arg Gly Asn His Glu Ser Arg Gln Ile Thr Gln 135 140 Val Tyr Gly Phe Tyr Asp Glu Cys Gln Thr Lys Tyr Gly Asn Ala Asn 150 155 Ala Trp Arg Tyr Cys Thr Lys Val Phe Asp Met Leu Thr Val Ala Ala 165 170 Leu Ile Asp Glu Gln Ile Leu Cys Val His Gly Gly Leu Ser Pro Asp 185 Ile Lys Thr Leu Asp Gln Ile Arg Thr Ile Glu Arg Asn Gln Glu Ile 200 205 Pro His Lys Gly Ala Phe Cys Asp Leu Val Trp Ser Asp Pro Glu Asp 215 220 Val Asp Thr Trp Ala Ile Ser Pro Arg Gly Ala Gly Trp Leu Phe Gly 230 235 Ala Lys Val Thr Asn Glu Phe Val His Ile Asn Asn Leu Lys Leu Ile 245 250 Cys Arg Ala His Gln Leu Val His Glu Gly Tyr Lys Phe Met Phe Asp 260 265 Glu Lys Leu Val Thr Val Trp Ser Ala Pro Asn Tyr Cys Tyr Arg Cys 280 Gly Asn Ile Ala Ser Ile Met Val Phe Lys Asp Val Asn Thr Arg Glu 295 300 Pro Lys Leu Phe Arg Ala Val Pro Asp Ser Glu Arg Val Ile Pro Pro 310 Arg Thr Thr Thr Pro Tyr Phe Leu 325 328

<210> 1346 <211> 253 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} 4400\text{>}1346\\ \text{Ser Phe Ala Gly Ala Ala Ala Alg Pro Ser Thr Pro Pro Ala Ser Gly}\\ 1 & 5 & 10 & 15\\ \text{Arg Gly Ala Ala Pro Gly Arg Pro Gly Pro Ser Pro Met Asp Leu Arg}\\ 20 & 25 & 30\\ \text{Ala Gly Asp Ser Trp Gly Met Leu Ala Cys Leu Cys Thr Val Leu Trp}\\ \end{array}$

40 His Leu Pro Ala Val Pro Ala Leu Asn Arg Thr Gly Asp Pro Gly Pro 55 Gly Pro Ser Ile Gln Lys Thr Tyr Asp Leu Thr Arg Tyr Leu Glu His 70 Gln Leu Arg Ser Leu Ala Gly Thr Tyr Leu Asn Tyr Leu Gly Pro Pro 85 Phe Asn Glu Pro Asp Phe Asn Pro Pro Arg Leu Gly Ala Glu Thr Leu 100 105 Pro Arg Ala Thr Val Asp Leu Glu Val Trp Arg Ser Leu Asn Asp Lys Leu Arg Leu Thr Gln Asn Tyr Glu Ala Tyr Ser His Leu Leu Cys Tyr 135 Leu Arg Gly Leu Asn Arg Gln Ala Ala Thr Ala Glu Leu Arg Arg Ser 1.55 150 Leu Ala His Phe Cys Thr Ser Leu Gln Gly Leu Leu Gly Ser Ile Ala 165 170 Gly Val Met Ala Ala Leu Gly Tyr Pro Leu Pro Gln Pro Leu Pro Gly 185 Thr Glu Pro Thr Trp Thr Pro Gly Pro Ala His Ser Asp Phe Leu Gln 200 205 Lys Met Asp Asp Phe Trp Leu Leu Lys Glu Leu Gln Thr Trp Leu Trp 215 220 Arg Ser Ala Lys Asp Phe Asn Arg Leu Lys Lys Lys Met Gln Pro Pro 230 235 Ala Ala Ala Val Thr Leu His Leu Gly Ala His Gly Phe 250

<210> 1347 <211> 195 <212>Amino acid <213> Homo sapiens

<400> 1347 Ile Lys Ile Ser Leu Lys Lys Arg Ser Met Ser Gly Ile Ser Gly Cys 1 5 10 15 Pro Phe Phe Leu Trp Gly Leu Leu Ala Leu Leu Gly Leu Ala Leu Val 25 Ile Ser Leu Ile Phe Asn Ile Ser His Tyr Val Glu Lys Gln Arg Gln 40 Asp Lys Met Tyr Ser Tyr Ser Ser Asp His Thr Arg Val Asp Glu Tyr Tyr Ile Glu Asp Thr Pro Ile Tyr Gly Asn Leu Asp Asp Met Ile Ser 70 75 Glu Pro Met Asp Glu Asn Cys Tyr Glu Gln Met Lys Ala Arg Pro Glu 90 Lys Ser Val Asn Lys Met Gln Glu Ala Thr Pro Ser Ala Gln Ala Thr 105 110 Asn Glu Thr Gln Met Cys Tyr Ala Ser Leu Asp His Ser Val Lys Gly 120 125 Lys Arg Arg Lys Pro Arg Lys Gln Asn Thr His Phe Ser Asp Lys Asp 135 1.40 Gly Asp Glu Gln Leu His Ala Ile Asp Ala Ser Val Ser Lys Thr Thr 150 155 Leu Val Asp Ser Phe Ser Pro Glu Ser Gln Ala Val Glu Glu Asn Ile 170 His Asp Asp Pro Ile Arg Leu Phe Gly Leu Ile Arg Ala Lys Arg Glu 185 Pro Ile Asn

195

<210> 1348 <211> 268 <212>Amino acid <213> Homo sapiens

<400> 1348 Val Glu Phe His Pro Gln Arg Ala Arg Ala Gly Ala Arg Ala Pro Ser 1 5 10 Met Gly Val Leu Leu Thr Gln Arg Thr Leu Leu Ser Leu Val Leu Ala 20 25 Leu Leu Phe Pro Ser Met Ala Ser Met Ala Ala Ile Gly Ser Cys Ser 3.5 40 Lys Glu Tyr Arg Val Leu Leu Gly Gln Leu Gln Lys Gln Thr Asp Leu 55 Met Gln Asp Thr Ser Arg Leu Leu Asp Pro Tyr Ile Arg Ile Gln Gly 70 Leu Asp Val Pro Lys Leu Arg Glu His Cys Arg Glu Arg Pro Gly Ala 85 90 Phe Pro Ser Glu Glu Thr Leu Arg Gly Leu Gly Arg Arg Cys Phe Leu 100 105 Gln Thr Leu Asn Ala Thr Leu Gly Cys Val Leu His Arg Leu Ala Asp 115 120 Leu Glu Gln Arg Leu Pro Lys Ala Gln Asp Leu Glu Arg Ser Gly Leu 135 140 Asn Ile Glu Asp Leu Glu Lys Leu Gln Met Ala Arg Pro Asn Ile Leu 150 155 Gly Leu Arg Asn Asn Ile Tyr Cys Met Ala Gln Leu Leu Asp Asn Ser 170 Asp Thr Ala Glu Pro Thr Lys Ala Gly Arg Gly Ala Ser Gln Pro Pro 185 190 Thr Pro Thr Pro Ala Ser Asp Ala Phe Gln Arg Lys Leu Glu Gly Cys 200 205 Arg Phe Leu His Gly Tyr His Arg Phe Met His Ser Val Gly Arg Val 215 220 Phe Ser Lys Trp Gly Glu Ser Pro Asn Arg Ser Arg Arg His Ser Pro 230 235 His Gln Ala Leu Arg Lys Gly Val Arg Arg Thr Arg Pro Ser Arg Lys 245 250 Gly Lys Arg Leu Met Thr Arg Gly Gln Leu Pro Arg 260 265

<210> 1349 <211> 138 <212>Amino acid <213> Homo sapiens

<210> 1350 <211> 236 <212>Amino acid <213> Homo sapiens

<400> 1350 · Ser Pro Leu Gly Lys Glu Gly Gln Glu Glu Val Arq Val Lys Ile Lys 10 Asp Leu Asn Glu His Ile Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr Glu Cys Leu His Thr Phe Cys Lys Ser Cys 40 Ile Val Lys Tyr Leu Gln Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile 55 Lys Ile His Glu Thr Gln Pro Leu Leu Asn Leu Lys Leu Asp Arg Val 70 75 Met Gln Asp Ile Val Tyr Lys Leu Val Pro Gly Leu Gln Asp Ser Glu 85 90 Glu Lys Arg Ile Arg Glu Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val 100 105 Thr Gln Pro Thr Gly Glu Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro 120 Phe Ser Ser Phe Asp His Ser Lys Ala His Tyr Tyr Arg Tyr Asp Glu 135 140 Gln Leu Asn Leu Cys Leu Glu Arg Leu Ser Ser Gly Lys Asp Lys Asn 150 155 Lys Ser Val Leu Gln Asn Lys Tyr Val Arg Cys Ser Val Arg Ala Glu 170 Val Arg His Leu Arg Arg Val Leu Cys His Arg Leu Met Leu Asn Pro 185 Gln His Val Gln Leu Leu Phe Asp Asn Glu Val Leu Pro Asp His Met 200 205 Thr Met Lys Gln Ile Trp Leu Ser Arg Trp Phe Gly Lys Pro Ser Pro 215 Leu Leu Leu Gln Tyr Ser Val Lys Glu Lys Arg Arg 225 230

<210> 1351 <211> 178 <212>Amino acid

<400> 1351 Leu Trp Trp Tyr Ser Ala His Ala Ala Val Asp Ala Met Met Asp Val 10 Phe Gly Val Gly Phe Pro Ser Lys Val Pro Trp Lys Lys Met Ser Ala 20 25 Glu Glu Leu Glu Asn Gln Tyr Cys Pro Ser Arg Trp Val Val Arg Leu 40 Gly Ala Glu Glu Ala Leu Arg Thr Tyr Ser Gln İle Gly Ile Glu Ala 55 Thr Thr Arg Ala Arg Ala Thr Arg Lys Ser Leu Leu His Val Pro Tyr 70 Gly Asp Gly Glu Gly Glu Lys Val Asp Ile Tyr Phe Pro Asp Glu Ser 85 9.0 Ser Glu Ala Thr Thr Arg Ala Arg Ala Thr Arg Lys Ser Leu Leu His 105 Val Pro Tyr Gly Asp Gly Glu Gly Glu Lys Val Asp Ile Tyr Phe Pro 115 120 125 Asp Glu Ser Ser Glu Ala Leu Pro Phe Phe Leu Phe Phe His Gly Gly 135 140 Tyr Trp Gln Ser Gly Arg His Pro Gly Pro His Gly Arg Pro Gly Asp 150 155 Pro Gln Arg Cys Val Cys Pro Glu Ala Val Ser Lys Gln Gln Ala Phe 165 170 Ser Tro 178

<210> 1352 <211> 284 <212>Amino acid <213> Homo sapiens

<400> 1352 Gly Val Arg Met Ala Ser Arg Gly Arg Arg Pro Glu His Gly Gly Pro Pro Glu Leu Phe Tyr Asp Glu Thr Glu Ala Arg Lys Tyr Val Arg Asn 25 Ser Arg Met Ile Asp Ile Gln Thr Arg Met Ala Gly Arg Ala Leu Glu 40 Leu Leu Tyr Leu Pro Glu Asn Lys Pro Cys Tyr Leu Leu Asp Ile Gly 60 Cys Gly Thr Gly Leu Ser Gly Ser Tyr Leu Ser Asp Glu Gly His Tyr 75 Trp Val Gly Leu Asp Ile Ser Pro Ala Met Leu Asp Glu Ala Val Asp 90 Arg Glu Ile Glu Gly Asp Leu Leu Leu Gly Asp Met Gly Gln Gly Ile 100 105 Pro Phe Lys Pro Gly Thr Phe Asp Gly Cys Ile Ser Ile Ser Ala Val 115 120 Gln Trp Leu Cys Asn Ala Asn Lys Lys Ser Glu Asn Pro Ala Lys Arg 135 Leu Tyr Cys Phe Phe Ala Ser Leu Phe Ser Val Leu Val Arg Gly Ser 150 155 Arg Ala Val Leu Gln Leu Tyr Pro Glu Asn Ser Glu Gln Leu Glu Leu 165 170 175 Ile Thr Thr Gln Ala Thr Lys Ala Gly Phe Ser Gly Gly Met Val Val 180 185 Asp Tyr Pro Asn Ser Ala Lys Ala Lys Lys Phe Tyr Leu Cys Leu Phe

<210> 1353 <211> 363 <212>Amino acid <213> Homo sapiens

<400> 1353 Thr Leu Ile Cys Arg Met Ala Gly Cys Gly Glu Ile Asp His Ser Ile 10 Asn Met Leu Pro Thr Asn Arg Lys Ala Asn Glu Ser Cys Ser Asn Thr Ala Pro Ser Leu Thr Val Pro Glu Cys Ala Ile Cys Leu Gln Thr Cys Val His Pro Val Ser Leu Pro Cys Lys His Val Phe Cys Tyr Leu Cys 55 Val Lys Gly Ala Ser Trp Leu Gly Lys Arg Cys Ala Leu Cys Arg Gln 70 75 Glu Ile Pro Glu Asp Phe Leu Asp Lys Pro Thr Leu Leu Ser Pro Glu 90 Glu Leu Lys Ala Ala Ser Arg Gly Asn Gly Glu Tyr Ala Trp Tyr Tyr 105 Glu Gly Arg Asn Gly Trp Trp Gln Tyr Asp Glu Arg Thr Ser Arg Glu 120 Leu Glu Asp Ala Phe Ser Lys Gly Lys Lys Asn Thr Glu Met Leu Ile 135 140 Ala Gly Phe Leu Tyr Val Ala Asp Leu Glu Asn Met Val Gln Tyr Arg 150 155 Arg Asn Glu His Gly Arg Arg Lys Ile Lys Arg Asp Ile Ile Asp 165 170 Ile Pro Lys Lys Gly Val Ala Gly Leu Arg Leu Asp Cys Asp Ala Asn 180 185 Thr Val Asn Leu Ala Arg Glu Ser Ser Ala Asp Gly Ala Asp Ser Val 195 200 205 Ser Ala Gln Ser Gly Ala Ser Val Gln Pro Leu Val Ser Ser Val Arg : 215 220 Pro Leu Thr Ser Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser 235 230 Pro Asp Ala Ser Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu 245 250 Ser Gly Asp Asn Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu 260 265 Asp His Glu Ser Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser 280 Ile Glu Glu Thr Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser 295 300 Ala Val Val Ala Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser 310 315 Asn Ala Asn Gln Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp

325 330 335 335 336 337 335 337 337 337 337 337 338 339 339 340 340 345 345 350 350 350 355 350 363

<210> 1354 <211> 368 <212>Amino acid <213> Homo sapiens

<400> 1354 Gly Ala Thr Pro Leu Gly Ser Val Gly Gly Arg Thr Gly Lys Met Asp 5 10 Ala Ala Thr Leu Thr Tyr Asp Thr Leu Arg Phe Ala Glu Phe Glu Asp 25 Phe Pro Glu Thr Ser Glu Pro Val Trp Ile Leu Gly Arg Lys Tyr Ser 40 Ile Phe Thr Glu Lys Asp Glu Ile Leu Ser Asp Val Ala Ser Arg Leu 55 Trp Phe Thr Tyr Arg Lys Asn Phe Pro Ala Ile Gly Gly Thr Gly Pro 70 Thr Ser Asp Thr Gly Trp Gly Cys Met Leu Arg Cys Gly Gln Met Ile 90 Phe Ala Gln Ala Leu Val Cys Arg His Leu Gly Arg Asp Trp Arg Trp 105 Thr Gln Arg Lys Arg Gln Pro Asp Ser Tyr Phe Ser Val Leu Asn Ala 120 125 Phe Ile Asp Arg Lys Asp Ser Tyr Tyr Ser Ile His Gln Ile Ala Gln 135 140 Met Gly Val Gly Glu Gly Lys Ser Ile Gly Gln Trp Tyr Gly Pro Asn 150 155 Thr Val Ala Gln Val Leu Lys Lys Leu Ala Val Phe Asp Thr Trp Ser 170 Ser Leu Ala Val His Ile Ala Met Asp Asn Thr Val Val Met Glu Glu 185 Ile Arg Arg Leu Cys Arg Thr Ser Val Pro Cys Ala Gly Ala Thr Ala 200 Phe Pro Ala Asp Ser Asp Arg His Cys Asn Gly Phe Pro Ala Gly Ala 215 220 Glu Val Thr Asn Arg Pro Ser Pro Trp Arg Pro Leu Val Leu Leu Ile 230 235 Pro Leu Arg Leu Gly Leu Thr Asp Ile Asn Glu Ala Tyr Val Glu Thr 250 Leu Lys His Cys Phe Met Met Pro Gln Ser Leu Gly Val Ile Gly Gly 265 Lys Pro Asn Ser Ala His Tyr Phe Ile Gly Tyr Val Gly Glu Glu Leu 280 Ile Tyr Leu Asp Pro His Thr Thr Gln Pro Ala Val Glu Pro Thr Asp 295 300 Gly Cys Phe Ile Pro Asp Glu Ser Phe His Cys Gln His Pro Pro Cys 310 315 Arg Met Ser Ile Ala Glu Leu Asp Pro Ser Ile Ala Val Val Arg Gly 325 330 Gly His Leu Ser Thr Gln Ala Phe Gly Ala Glu Cys Cys Leu Gly Met 340 345 350 Thr Arg Lys Thr Phe Gly Phe Leu Arg Phe Phe Phe Ser Met Leu Gly 360 365

<210> 1355 <211> 117 <212>Amino acid <213> Homo sapiens

<400> 1355 Pro Thr Thr Ser Asn Arg Ala Ile Thr Leu Thr Ala Trp Pro Lys Ile 1 5 10 Pro Phe Leu Gly Ile Cys Glu Ala Lys Asn Pro Arg Ser Glu Asn Met Arg Leu Ala Thr Ile Leu Glu Val Ala Cys His His Leu Gly Ser Gly Pro Pro Pro Ser Trp Glu Leu Trp Glu Gln Gly Pro Pro Gly Asn Ser Ser Arg Tyr Ile Glu Phe Leu Asn Lys His Thr Tyr Ile Lys Gly Thr 75 Leu Arg Val Tyr Thr Lys Lys Phe Cys Met Leu Val Ile Lys Ser Phe 90 Glu Ser Lys Ser Cys Val Cys Val Tyr Asp Phe Asp Ser Lys Ser Ser 100 105 Val Asn Val Thr Val 115 117

<210> 1356 <211> 126 <212>Amino acid <213> Homo sapiens

<400> 1356 Pro Arg Val Arg Phe Arg Leu Leu His Val Thr Ser Ile Arg Ser Ala 10 Trp Ile Leu Cys Gly Ile Ile Trp Ile Leu Ile Met Ala Ser Ser Ile 25 Met Leu Leu Asp Ser Gly Ser Glu Gln Asn Gly Ser Val Thr Ser Cys Leu Glu Leu Asn Leu Tyr Lys Ile Ala Lys Leu Gln Thr Val Asn Tyr Ile Ala Leu Val Val Gly Cys Leu Leu Pro Phe Phe Thr Leu Ser Ile 70 75 Cys Tyr Leu Leu Ile Ile Arg Val Leu Leu Lys Val Glu Val Pro Glu 85 90 Ser Gly Leu Arg Val Ser His Arg Lys Ala Leu Thr Thr Ile Ile Ile 100 105 110 Thr Leu Ile Ile Phe Phe Leu Cys Phe Leu Pro Tyr His Thr 115 120

<210> 1357 <211> 222 <212>Amino acid <213> Homo sapiens

```
<400> 1357
Gly Arg His Trp Leu Gly Ser Ala Gln Leu Thr Asp Gly Gly Ser Ala
                              10
Arg Lys Pro Lys Met Ala Val Pro Ala Ala Leu Ile Leu Arg Glu Ser
                             25
Pro Ser Met Lys Lys Ala Val Ser Leu Ile Asn Ala Ile Asp Thr Gly
                         40
Arg Phe Pro Arg Leu Leu Thr Arg Ile Leu Gln Lys Leu His Leu Lys
                     55
Ala Glu Ser Ser Phe Ser Glu Glu Glu Glu Glu Lys Leu Gln Ala Ala
                  70
Phe Ser Leu Glu Lys Gln Asp Leu His Leu Val Leu Glu Thr Ile Ser
                                90
Phe Ile Leu Glu Gln Ala Val Tyr His Asn Val Lys Pro Ala Ala Leu
                            105
Gln Gln Gln Leu Glu Asn Ile His Leu Arg Gln Asp Lys Ala Glu Ala
                        120
                                           125
Phe Val Asn Thr Trp Ser Ser Met Gly Gln Glu Thr Val Glu Lys Phe
                    135
                                       140
Arg Gln Arg Ile Leu Ala Pro Cys Lys Leu Glu Thr Val Gly Trp Gln
                150
                                  155
Leu Asn Leu Gln Met Ala His Ser Ala Gln Ala Lys Leu Lys Ser Pro
             165
                               170
Gln Ala Val Leu Gln Leu Gly Val Asn Asn Glu Asp Ser Lys Ser Leu
                            185
Glu Lys Val Leu Val Glu Phe Ser His Lys Glu Leu Phe Asp Phe Tyr
     195 200
Asn Lys Leu Glu Thr Ile Gln Ala Gln Leu Asp Ser Leu Thr
                    215
                                      220 222
```

<210> 1358

<400> 1358

<211> 116 <212>Amino acid

<213> Homo sapiens

105

Cys Asn Asn Gln 115 116

<210> 1359

<211> 466 <212>Amino acid <213> Homo sapiens

<400> 1359 Lys Met Ala Glu Ala Val Phe His Ala Pro Lys Arg Lys Arg Arg Val 5 10 Tyr Glu Thr Tyr Glu Ser Pro Leu Pro Ile Pro Phe Gly Gln Asp His 25 Gly Pro Leu Lys Glu Phe Lys Ile Phe Arg Ala Glu Met Ile Asn Asn 35 40 Asn Val Ile Val Arg Asn Ala Glu Asp Ile Glu Gln Leu Tyr Gly Lys 55 Gly Tyr Phe Gly Lys Gly Ile Leu Ser Arg Ser Arg Pro Ser Phe Thr 70 Ile Ser Asp Pro Lys Leu Val Ala Lys Trp Lys Asp Met Lys Thr Asn Met Pro Ile Ile Thr Ser Lys Arg Tyr Gln His Ser Val Glu Trp Ala 105 Ala Glu Leu Met Arg Arg Gln Gly Gln Asp Glu Ser Thr Val Arg Arg 120 Ile Leu Lys Asp Tyr Thr Lys Pro Leu.Glu His Pro Pro Val Lys Arg 135 Asn Glu Glu Ala Gln Val His Asp Lys Leu Asn Ser Gly Met Val Ser 150 155 Asn Met Glu Gly Thr Ala Gly Gly Glu Arg Pro Ser Val Val Asn Gly 165 170 Asp Ser Gly Lys Ser Gly Gly Val Gly Asp Pro Arg Glu Pro Leu Gly 180 185 Cys Leu Gln Glu Gly Ser Gly Cys His Pro Thr Thr Glu Ser Phe Glu 200 Lys Ser Val Arg Glu Asp Ala Ser Pro Leu Pro His Val Cys Cys 215 220 Lys Gln Asp Ala Leu Ile Leu Gln Arg Gly Leu His His Glu Asp Gly 230 235 Ser Gln His Ile Gly Leu Leu His Pro Gly Asp Arg Gly Pro Asp His 245 250 Glu Tyr Val Leu Val Glu Glu Ala Glu Cys Ala Met Ser Glu Arg Glu 260 265 Ala Ala Pro Asn Glu Glu Leu Val Gln Arg Asn Arg Leu Ile Cys Arg 280 Arg Asn Pro Tyr Arg Ile Phe Glu Tyr Leu Gln Leu Ser Leu Glu Glu 295 300 Ala Phe Phe Leu Val Tyr Ala Leu Gly Cys Leu Ser Ile Tyr Tyr Glu 310 315 Lys Glu Pro Leu Thr Ile Val Lys Leu Trp Lys Ala Phe Thr Val Val 325 330 Gln Pro Thr Phe Arg Thr Thr Tyr Met Ala Tyr His Tyr Phe Arg Ser 345 Lys Gly Trp Val Pro Lys Val Gly Leu Lys Tyr Gly Thr Asp Leu Leu 360 365 Leu Tyr Arg Lys Gly Pro Pro Phe Tyr His Ala Ser Tyr Ser Val Ile 375 380 Ile Glu Leu Val Asp Asp His Phe Glu Gly Ser Leu Arg Arg Pro Leu 390 395 Ser Trp Lys Ser Leu Ala Ala Leu Ser Arg Val Ser Val Asn Val Ser 405 410 Lys Glu Leu Met Leu Cys Tyr Leu Ile Lys Pro Ser Thr Met Thr Asp 425 Lys Glu Met Glu Ser Pro Glu Cys Met Lys Arg Ile Lys Val Gln Glu

435 440 445
Val Ile Leu Ser Arg Trp Val Ser Ser Arg Glu Arg Ser Asp Gln Asp
450 455 460
Asp Leu
465 466

<210> 1360 <211> 419 <212>Amino acid <213> Homo sapiens

<400> 1360

Arg Asp Ile Trp Thr Met Asn Leu Gln Arg Tyr Trp Gly Glu Ile Pro Ile Ser Ser Ser Gln Thr Asn Arg Ser Ser Phe Asp Leu Leu Pro Arg Glu Phe Arg Leu Val Glu Val His Asp Pro Pro Leu His Gln Pro Ser Ala Asn Lys Pro Lys Pro Pro Thr Met Leu Asp Ile Pro Ser Glu Pro 55 Cys Ser Leu Thr Ile His Thr Ile Gln Leu Ile Gln His Asn Arg Arg 75 Leu Arg Asn Leu Ile Ala Thr Ala Gln Ala Gln Asn Gln Gln Gln Thr 90 Glu Gly Val Lys Thr Glu Glu Ser Glu Pro Leu Pro Ser Cys Pro Gly 105 Ser Pro Pro Leu Pro Asp Asp Leu Leu Pro Leu Asp Cys Lys Asn Pro 120 Asn Ala Pro Phe Gln Ile Arg His Ser Asp Pro Glu Ser Asp Phe Tyr 135 Arg Gly Lys Gly Glu Pro Val Thr Glu Leu Ser Trp His Ser Cys Arg 150 155 Gln Leu Leu Tyr Gln Ala Val Ala Thr Ile Leu Ala His Ala Gly Phe 165 170 Asp Cys Ala Asn Glu Ser Val Leu Glu Thr Leu Thr Asp Val Ala His 180 185 Glu Tyr Cys Leu Lys Phe Thr Lys Leu Leu Arg Phe Ala Val Asp Arg 200 Glu Ala Arg Leu Gly Gln Thr Pro Phe Pro Asp Val Met Glu Gln Val 215 220 Phe His Glu Val Gly Ile Gly Ser Val Leu Ser Leu Gln Lys Phe Trp 230 235 Gln His Arg Ile Lys Asp Tyr His Ser Tyr Met Leu Gln Ile Ser Lys 250 Gln Leu Ser Glu Glu Tyr Glu Arg Ile Val Asn Pro Glu Lys Ala Thr 260 265 Glu Asp Ala Lys Pro Val Lys Ile Lys Glu Glu Pro Val Ser Asp Ile 280 285 Thr Phe Pro Val Ser Glu Glu Leu Glu Ala Asp Leu Ala Ser Gly Asp 295 300 Gln Ser Leu Pro Met Gly Val Leu Gly Ala Gln Ser Glu Arg Phe Pro 310 315 Ser Asn Leu Glu Val Glu Ala Ser Pro Gln Ala Ser Ser Ala Glù Val 325 330 Asn Ala Ser Pro Leu Trp Asn Leu Ala His Val Lys Met Glu Pro Gln 345 350 Glu Ser Glu Glu Gly Asn Val Ser Gly His Gly Val Leu Gly Ser Asp 360 Val Phe Glu Glu Pro Met Ser Gly Met Ser Glu Ala Gly Ile Pro Gln

<210> 1361 <211> 220 <212>Amino acid <213> Homo sapiens

<400> 1361 Arg Glu Gln Ile Leu Phe Ile Glu Ile Arg Asp Thr Ala Lys Gly Gly 5 Glu Thr Glu Gln Pro Pro Ser Leu Ser Pro Leu His Gly Gly Arg Met 20 25 Pro Glu Met Gly Glu Gly Ile Gln Ser Leu Ala Arg Glu Thr Gln Ser His Arg Gly Arg Arg Gln Gly Trp Asp Ala Thr Trp Val Thr Arg Cys Arg Glu Ser Leu Asn Arg Gly Gly Ala Gly Ala Gly Lys Arg Ala Gly 75 Ala Leu Ala His His Val Phe Leu Ala Leu Ile Glu Pro Asn Leu Ala 85 Glu Arg Glu Ala Ser Glu Glu Glu Val Lys Ala Cys Ser Asp Glu Thr 105 Val Val Ala Asp Leu Leu Val Lys Val Val Tyr Val Leu Gly Ala Ile 120 Leu Lys Ile Phe Leu Arg Glu Gly Asn Val Leu Asn Gln His Ser Gly 135 140 Met Asp Ile Glu Lys Tyr Ser Glu His Tyr Gln His Asp His Ser Pro 150 155 Gly Ala Glu Asp Asp Ala Ala Gly Gly Gln Leu Arg Pro Thr Ala Gln 170 Glu Arg Arg His Lys Glu Gly Ser Arg Gly Ser Pro Arg Cys Lys Arg 180 185 Ala Arg Lys Ala Val Gly Glu Ser Pro Gly Cys Pro Arg Pro Arg Val 200 Arg Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val 215

<210> 1362 <211> 82 <212>Amino acid <213> Homo sapiens

 $^{\circ}$ 400> 1362 Gly Cys Cys Arg Glu Gly Thr Ala Tyr Ala Lys Ala Tyr 1 $^{\circ}$ 5 $^{\circ}$ 10 $^{\circ}$ 15 Gln Phe Met Ala Ser His Leu Ser Leu Gly Lys Pro Val Ser Thr Gly 25 $^{\circ}$ 20 $^{\circ}$ 25 Ser Ile Pro Arg Phe Asn Lys Ala Leu Phe Asn Lys Gln Ala Lys Cys

35 40 45 45 Lys Pro Asn His Tyr Ser Phe Ile Gly Leu Ser Met Leu Ser Pro Glu 50 60 Asn Phe Ser Ile Gly Cys Lys Tyr Ser Val Trp Phe Ser Glu Thr Lys 65 70 Gly Phe 82 82

<210> 1363 <211> 143 <212>Amino acid <213> Homo sapiens

<400> 1363 Gly Ala Gln Gly Val Arg Val Gly Ile Gly Glu Val Gly Arg Val Gln 5 Ala Pro Arg Val Ser Leu Leu His Ser Gln Gly Val Pro Arg Gly Gly 2.0 Thr Gly Glu Ala Val Lys Glu Glu Gly Arg Gly Ser Ser Leu His Pro Pro Leu Pro Pro Gln Gly Leu Gly Glu Tyr Ala Ala Cys Gln Ser His 55 Ala Phe Met Lys Gly Val Phe Thr Phe Val Thr Gly Thr Gly Met Ala 75 Phe Gly Leu Gln Met Phe Ile Gln Arg Lys Phe Pro Tyr Pro Leu Gln Trp Ser Leu Leu Val Ala Val Val Ala Gly Ser Val Val Ser Tyr Gly 105 Val Thr Arg Val Glu Ser Glu Lys Cys Asn Asn Leu Trp Leu Phe Leu 120 125 Glu Thr Gly Gln Leu Pro Lys Asp Arg Ser Thr Asp Gln Arg Ser 135 140 143

<210> 1364
<211> 194
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(194)

<223> X = any amino acid or stop code

Pro Gly Leu Pro Ala Gly Glu Gln Leu Glu Gly Leu Lys His Ala Gln 25 90 Asp Ser Asp Pro Arg Ser Pro Leu Gly Lys Asn Xaa Gly His Gly Trp 100 105 Gln Val Gly Gln Gly Ser Asp Leu Gly Ser Pro Gln Pro Leu Pro Pro 120 125 Ser Ala Ser His Leu Tyr Ser Ser Arg Ala Ser Arg Cys Ser Gln Pro 135 140 Pro Cys Leu Ser Leu Pro Trp Phe Gly Val Arg Ser Ser Pro Ala Asn 150 155 Thr Tyr His Val Pro Val Thr Ser Leu Cys Pro Ser Pro Ala Leu His 165 170 Tyr Thr Ala Leu Gln Ala Gly Ile Ile Ser Thr Ser Gln Ala Arg Ala 180 185

Pro Arg 194

> <210> 1365 <211> 114 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1) ... (114)

<223> X = any amino acid or stop code

<400> 1365

Pro Leu Leu Leu Pro Arg Phe Ile Asp Ile Pro Cys Leu Leu Cys Tyr 1 5 10 15

Leu Thr Gln Val Thr Pro Asp Asp Met Tyr Ala Lys Ala Phe Leu Ile 25

Lys Pro Asn Thr Ala Ile Thr Gly Thr Asp Arg Arg Lys Leu Arg Ala 35

Asp Glu Thr Thr Asp Phe Pro Thr Leu Gly Thr Asp Gln Ile Tyr Glu 55

Leu Leu Pro Gly Lys Asp Glu Leu Asn Ile Val Lys Ser Asn Ala His 65

70

Lys Arg Asp Asp Ala Xaa Thr Ala Tyr Val Ser Gly Glu Asn His Ile Leu 90

Ser Glu Pro Xaa Lys Asn Leu Tyr Pro Ala Val Asn Thr Leu Ser Ser 100

Tyr Pro

<210> 1366 <211> 80 <212>Amino acid <213> Homo sapiens

<400> 1366

Ser Arg Gln Pro Pro Pro Leu Leu Thr Met Val Phe Leu Leu Glu Phe 1 5 10 15 Leu Phe Leu Val Phe Pro Gly Cys Val Asn Gln Leu Leu Leu Ser

<210> 1367 <211> 301 <212>Amino acid <213> Homo sapiens

<400> 1367 Lys Ser Arg Glu Gln Ser Ser Leu Phe Ala Ala Asp Ala Glu Arg Ser 10 Trp Gly Gly Lys Ser Cys Cys Leu Leu Arg Trp Arg Phe Val Gly Lys Ala Ser His Phe Pro Arg Leu Leu Pro Leu Pro Gly Glu Glu Arg Pro 40 Glu Thr Lys Glu Arg Ala Trp Lys Met Glu Gln Thr Trp Thr Arg Asp 55 Tyr Phe Ala Glu Asp Asp Gly Glu Met Val Pro Arg Thr Ser His Thr 75 Ala Ala Ser Val Ser Leu Thr Ala Phe Leu Ser Asp Thr Lys Asp Arg 85 90 Gly Pro Pro Val Gln Ser Gln Ile Trp Arg Ser Gly Glu Lys Val Pro 100 105 Phe Val Gln Thr Tyr Ser Leu Arg Ala Phe Glu Lys Pro Pro Gln Val 120 Gln Thr Gln Ala Leu Arg Asp Phe Glu Lys His Leu Asn Asp Leu Lys 135 Lys Glu Asn Phe Ser Leu Lys Leu Leu Ile Tyr Phe Leu Glu Glu Arg 150 155 Met Gln Gln Lys Tyr Glu Ala Ser Arg Glu Asp Ile Tyr Lys Arg Asn 165 170 175 Thr Glu Leu Lys Val Glu Val Glu Ser Leu Lys Arg Glu Leu Gln Asp 185 Lys Lys Gln His Leu Asp Lys Thr Trp Ala Asp Val Glu Asn Leu Asn 200 Ser Gln Asn Glu Ala Glu Leu Arg Arg Gln Phe Glu Glu Arg Gln Gln 215 220 Glu Met Glu His Val Tyr Glu Leu Leu Glu Asn Lys Met Gln Leu Leu 230 235 Gln Glu Glu Ser Arg Leu Ala Lys Asn Glu Ala Ala Arg Met Ala Ala 245 250 Leu Val Glu Ala Glu Lys Glu Cys Asn Leu Glu Leu Ser Glu Lys Leu 260 265 Lys Gly Val Thr Lys Asn Trp Glu Asp Val Pro Gly Asp Gln Val Lys 280 Pro Asp Gln Tyr Thr Glu Ala Leu Ala Gln Arg Asp Lys 295

<210> 1368 <211> 308

<212>Amino acid

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(308)
<223> X = any amino acid or stop code

<400> 1368 Thr Arg Arg Arg Gly Thr Thr Trp Arg Ser Pro Arg Pro Arg Arg Ala Ser Thr Ser Arg Pro Ser Thr Arg Pro Arg Gly Val Ala Ser Trp Pro 25 Trp Glu Thr Ala Gly Thr Ala Thr Thr Gly Pro Gly Pro Ser Ala Arg Thr Arg Arg Arg Ala Ala Arg Arg Arg Ser Arg Pro Arg Arg Arg Ala His Gly Gly Leu Ser Gln Pro Ala Gly Trp Gln Ser Leu Leu Ser 70 75 Phe Thr Ile Leu Phe Leu Ala Trp Leu Ala Gly Phe Ser Ser Arg Leu 90 Phe Ala Val Ile Arg Phe Glu Ser Ile Ile His Glu Phe Asp Pro Trp 105 Phe Asn Tyr Arg Ser Thr His His Leu Ala Ser His Gly Phe Tyr Glu 120 Phe Leu Asn Trp Phe Asp Glu Arg Ala Trp Tyr Pro Leu Gly Arg Ile 135 Val Gly Gly Thr Val Tyr Pro Gly Leu Met Ile Thr Ala Gly Leu Ile 150 155 His Trp Ile Leu Asn Thr Leu Asn Ile Thr Val His Ile Arg Asp Val 165 170 Cys Val Phe Leu Ala Pro Thr Phe Ser Gly Leu Thr Ser Ile Ser Thr 185 Phe Leu Leu Thr Arg Glu Leu Trp Asn Gln Gly Ala Gly Leu Leu Ala 200 Ala Cys Phe Ile Ala Ile Val Pro Gly Tyr Ile Ser Arg Ser Val Ala 210 215 Gly Ser Phe Asp Asn Glu Gly Ile Ala Ile Phe Ala Leu Gln Phe Thr 230 Tyr Tyr Leu Trp Val Lys Ser Val Lys Thr Gly Ser Val Phe Trp Thr 245 250 Met Cys Cys Cys Leu Ser Tyr Phe Tyr Met Val Ser Ala Trp Gly Gly 260 265 Tyr Val Phe Ile Ile Asn Leu Ile Pro Leu His Ala Phe Val Leu Val 280 Leu Met Gln Arg Tyr Ser Lys Arg Val Tyr Ile Xaa Tyr Ser Thr Phe 290 295 Tvr Ile Val Glv 305 308

<210> 1369 <211> 212 <212>Amino acid

<213> Homo sapiens

<400> 1369

Arg Arg Leu Ile Val Val Leu Ser Asp Ala Phe Leu Ser Arg Ala Trp Cys Ser His Ser Phe Arg Val Gly Pro Ala Arg Gly Trp Val Gly Pro Ser Val Ala Pro Thr Pro Leu Thr Val Pro Pro Arg Arg Glu Glv Leu Cys Arg Leu Leu Glu Leu Thr Arg Arg Pro Ile Phe Ile Thr Phe Glu Gly Gln Arg Arg Asp Pro Ala His Pro Ala Leu Arg Leu Leu Arg Gln His Arg His Leu Val Thr Leu Leu Leu Trp Arg Pro Gly Ser Val Thr 90 Pro Ser Ser Asp Phe Trp Lys Glu Val Gln Leu Ala Leu Pro Arg Lys 105 Val Arg Tyr Arg Pro Val Glu Gly Asp Pro Gln Thr Gln Leu Gln Asp 120 Asp Lys Asp Pro Met Leu Ile Leu Arg Gly Arg Val Pro Glu Gly Arg 135 140 Ala Leu Asp Ser Glu Val Asp Pro Asp Pro Glu Gly Asp Leu Gly Val 1.50 1.55 Arg Gly Pro Val Phe Gly Glu Pro Ser Ala Pro Pro His Thr Ser Gly 165 170 Val Ser Leu Gly Glu Ser Arg Ser Ser Glu Val Asp Val Ser Asp Leu 1.80 185 Gly Ser Arg Asn Tyr Ser Ala Arg Thr Asp Phe Tyr Cys Leu Val Ser 200 Lvs Asp Asp Met

210 212

<210> 1370 <211> 281 <212>Amino acid <213> Homo sapiens

<400> 1370 Leu Ser His Glu Gly Trp Arg Arg Gly Arg Glu Gly Glu Arg Ile Asn Ser Ser Val Ala Ser Leu Ala Pro Leu Cys Ile Leu Pro Asp Leu Pro Ser Asn Met His Leu Ala Arg Leu Val Gly Ser Cys Ser Leu Leu Leu Leu Leu Gly Ala Leu Ser Gly Trp Ala Ala Ser Asp Asp Pro Ile Glu Lys Val Ile Glu Gly Ile Asn Arg Gly Leu Ser Asn Ala Glu Arg Glu 70 Val Gly Lys Ala Leu Asp Gly Ile Asn Ser Gly Ile Thr His Ala Gly 90 Arg Glu Val Glu Lys Val Phe Asn Gly Leu Ser Asn Met Gly Ser His 105 Thr Gly Lys Glu Leu Asp Lys Gly Val Gln Gly Leu Asn His Gly Met 120 Asp Lys Val Ala His Glu Ile Asn His Gly Ile Gly Gln Ala Gly Lys 135 Glu Ala Glu Lys Leu Gly His Gly Val Asn Asn Ala Ala Gly Gln Ala 150 155 Gly Lys Glu Ala Asp Lys Ala Val Gln Gly Phe His Thr Gly Val His 165 170 Gln Ala Gly Lys Glu Ala Glu Lys Leu Gly Gln Gly Val Asn His Ala 185

Ala Asp Gln Ala Gly Lys Glu Val Glu Lys Leu Gly Gln Gly Ala His 200 His Ala Ala Gly Gln Ala Gly Lys Glu Leu Gln Asn Ala His Asn Gly 215 220 Val Asn Gln Ala Ser Lys Glu Ala Asn Gln Leu Leu Asn Gly Asn His 230 235 Gln Ser Gly Ser Ser Ser His Gln Gly Gly Ala Thr Thr Thr Pro Leu 245 250 Ala Ser Gly Ala Ser Val Asn Thr Pro Phe Ile Asn Leu Pro Ala Leu 265 Trp Arg Ser Val Ala Asn Ile Met Pro 275 280 281

<210> 1371 <211> 119 <212>Amino acid <213> Homo sapiens

<400> 1371 Ser Ala Ser Gly Gly Leu Gly Met Thr Val Glu Gly Pro Glu Gly Ser 10 Glu Arg Glu His Arg Pro Pro Glu Lys Pro Pro Arg Pro Pro Arg Pro 20 Leu His Leu Ser Asp Arg Ser Phe Arg Arg Lys Lys Asp Ser Val Glu Ser His Pro Thr Trp Val Asp Asp Thr Arg Ile Asp Ala Asp Ala Ile Val Glu Lys Ile Val Gln Ser Gln Asp Phe Thr Asp Gly Ser Asn Thr 70 Glu Asp Ser Asn Leu Arg Leu Phe Val Ser Arg Asp Gly Ser Ala Thr 90 Leu Ser Gly Ile Gln Leu Ala Thr Arg Val Ser Ser Gly Val Tyr Glu 100 105 Pro Val Val Ile Glu Ser His 115

<210> 1372 <211> 108 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} 4400 \text{b} \cdot 1372 \\ \text{dlu Arg Ser Gly Trp} & \text{Pro Gln Pro Glu Gly Thr Val Thr Ala Gln Gly} \\ 1 & 1 & 5 & 10 \\ \text{Pro Leu Phe Trp Glu Arg Leu Ser Gly Ala Val Thr Val Ser Ser Gly} \\ 20 & 25 \\ \text{Tyr Lys Ala Asp Met Trp Pro Ser Phe Pro Gln Val Arg Val Gly Ser} \\ 3 & 59 \\ \text{Phe Leu Phe Gly Ile Leu Phe Phe Ser Phe Gly Ser Ser Ser Leu Pro} \\ 50 & 60 \\ \text{Pro Gly Leu Pro} & \text{Pro Pro Pro Ala Ser Leu Leu Cys Cys Ala Val Gln Trp} \\ 65 & 70 & 75 \\ \text{Gly Ala Arg Ala Leu Phe Leu Pro Cys Leu Lys Glu Arg Ala Leu Gly} \\ 85 & 90 \\ \end{array}$

Met Glu Met Arg Asn Asn Thr Leu Ser Phe Arg Gln 100 105 108

<210> 1373

<211> 209

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(209)

<223> X = any amino acid or stop code

<400> 1373

Ser Ser Ser Asn Leu Arg Leu Ser Phe Leu Ile Asn Glu Asn Ile Leu 5 10 Gly Lys Cys Phe Arg Ser Gly Pro Ser Cys Ala Gly Pro Arg Ile Ser 20 25 Pro Leu Ala Ala Gln Tyr Glu Cys Pro Arg Pro Ser Leu Leu Ile Met 35 40 Ala Ser Val Pro Lys Thr Asn Lys Ile Glu Pro Arg Ser Tyr Ser Ile Ile Pro Ser Cys Gly Ile Arg Arg Leu Gly Pro Ala Leu Asn Thr Leu 70 75 Ile Phe Gln Ser Lys Arg Phe Gly Pro Arg Gly His Ser Ala Lys Ser 85 Ile Glu Gly Ala Pro Arg Gly Lys Gly Arg Gly Arg Ala Val Ala Arg 100 105 Leu Ala Ala Asp Arg Pro Pro Ala Pro Lys Ile Gln Leu Arg Ala Phe 115 120 Xaa Leu Gln Gln Leu Xaa Tyr Thr Leu Leu Glu Leu Glu Leu Pro Arg 135 Leu Leu Ala Pro Asp Leu Pro Ser Asn Gly Ser Ser Leu Lys Asp Leu 150 Lys Trp Thr His Ser Asn Tyr Arg Ala Ser Lys Glu Ser Cys Ile Val 165 170 Ile Phe Val Thr Thr Ser Pro Gly Arg Glu Trp Val Ile Cys Ala Leu 185 Ala Ala Phe Leu Gly Cys Gly Ser Leu Ser Gln Ala Pro Ser Pro Glu

200

205

Ser 209

<210> 1374

<211> 153 <212>Amino acid

<213> Homo sapiens

<400> 1374

<210> 1375 <211> 149 <212>Amino acid <213> Homo sapiens

<400> 1375 Phe Ala Ser Ala Met Leu Gly Ser Arg Val Asp Arg Pro Lys Leu Ser 1 5 10 Val Ala Pro Ser Val Val Leu Glu Glu Asp Gln Val Leu Val Ser Pro Ala Val Asp Leu Glu Ala Gly Cys Arg Leu Arg Asp Phe Thr Glu Lys 40 Ile Met Asn Val Lys Gly Lys Val Ile Leu Ser Met Leu Val Val Ser 55 Thr Val Ile Ile Val Phe Trp Glu Phe Ile Asn Ser Thr Glu Gly Ser 70 Phe Leu Trp Ile Tyr His Ser Lys Asn Pro Glu Val Asp Asp Ser Ser 90 Ala Gln Lys Gly Trp Trp Phe Leu Ser Trp Phe Asn Asn Gly Ile His 1.05 Asn Tyr Gln Gln Gly Glu Glu Asp Ile Asp Lys Glu Lys Gly Arg Glu 120 Glu Thr Lys Gly Arg Lys Met Thr Gln Gln Ser Phe Gly Tyr Gly Thr 135 Gly Leu Ile Gln Thr 149

<210> 1376 <211> 416 <212>Amino acid <213> Homo sapiens

 $^{\circ}$ 4400> 1376 Glu Val Gly Gly Ser His Arg Phe Ser Leu Ala Ser Pro Leu Asp Pro Glu Val Gly 1 $_{1}$ 5 $_{10}$ 10 $_{15}$ Pro Tyr Cys Asp Thr Pro Thr Met Arg Thr Leu Phe Asn Leu Leu Trp $_{25}$ $_{30}$ Leu Ala Leu Ala Cys Ser Pro Val Hits Thr Thr Leu Ser Lys Ser Asp

40 Ala Lys Lys Ala Ala Ser Lys Thr Leu Leu Glu Lys Ser Gln Phe Ser 55 60 Asp Lys Pro Val Gln Asp Arg Gly Leu Val Val Thr Asp Leu Lys Ala 75 Glu Ser Val Val Leu Glu His Arg Ser Tyr Cys Ser Ala Lys Ala Arg 90 Asp Arg His Phe Ala Gly Asp Val Leu Gly Tyr Val Thr Pro Trp Asn 105 Ser His Gly Tyr Asp Val Thr Lys Val Phe Gly Ser Lys Phe Thr Gln 115 120 125 Ile Ser Pro Val Trp Leu Gln Leu Lys Arg Arg Gly Arg Glu Met Phe 135 140 Glu Val Thr Gly Leu His Asp Val Asp Gln Gly Trp Met Arg Ala Val 150 Arg Lys His Ala Lys Gly Leu His Ile Val Pro Arg Leu Leu Phe Glu 165 170 Asp Trp Thr Tyr Asp Asp Phe Arg Asn Val Leu Asp Ser Glu Asp Glu 185 Ile Glu Glu Leu Ser Lys Thr Val Val Gln Val Ala Lys Asn Gln His 200 Phe Asp Gly Phe Val Val Glu Val Trp Asn Gln Leu Leu Ser Gln Lys 215 220 Arg Val Gly Leu Ile His Met Leu Thr His Leu Ala Glu Ala Leu His 230 235 Gln Ala Arg Leu Leu Ala Leu Leu Val Ile Pro Pro Ala Ile Thr Pro 250 Gly Thr Asp Gln Leu Gly Met Phe Thr His Lys Glu Phe Glu Gln Leu 265 Ala Pro Val Leu Asp Gly Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr 280 Ala His Gln Pro Gly Pro Asn Ala Pro Leu Ser Trp Val Arg Ala Cys 295 300 Val Gln Val Leu Asp Pro Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu 310 315 Gly Leu Asn Phe Tyr Gly Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg 325 330 Glu Pro Val Val Gly Ala Arg Tyr Ile Gln Thr Leu Lys Asp His Arg 340 345 Pro Arg Met Val Trp Asp Ser Gln Val Ser Glu His Phe Phe Glu Tyr 360 Lys Lys Ser Arg Ser Gly Arg His Val Val Phe Tyr Pro Thr Leu Lys 375 Ser Leu Gln Val Arg Leu Glu Leu Ala Arg Glu Leu Gly Val Gly Val 390 395 Ser Ile Trp Glu Leu Gly Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu 405 410

<210> 1377 <211> 316

<212>Amino acid <213> Homo sapiens

<400> 1377

Gly Arg Glu Gly Thr Gly Trp Gly Pro Ala Met Ser Glu Val Thr Arg $1 \\ 5 \\ 10 \\ 15$ Ser Leu Leu Gln Arg Trp Gly Ala Ser Phe Arg Arg Gly Ala Asp Phe

Asp Ser Trp Gly Gln Leu Val Glu Ala Ile Asp Glu Tyr Gln Ile Leu 35 40 Ala Arg His Leu Gln Lys Glu Ala Gln Ala Gln His Asn Asn Ser Glu 50 55 Phe Thr Glu Glu Gln Lys Lys Thr Ile Gly Lys Ile Ala Thr Cys Leu 70 75 Glu Leu Arg Ser Ala Ala Leu Gln Ser Thr Gln Ser Gln Glu Glu Phe 85 Lys Leu Glu Asp Leu Lys Lys Leu Glu Pro Ile Leu Lys Asn Ile Leu 100 105 110 Thr Tyr Asn Lys Glu Phe Pro Phe Asp Val Gln Pro Val Pro Leu Arg 120 125 Arg Ile Leu Ala Pro Gly Glu Glu Asn Leu Glu Phe Glu Glu Asp 135 140 Glu Glu Glu Gly Gly Ala Gly Ala Gly Ser Pro Asp Ser Phe Pro Ala 150 155 160 Arg Val Pro Gly Thr Leu Leu Pro Arg Leu Pro Ser Glu Pro Gly Met 165 170 Thr Leu Leu Thr Ile Arg Ile Glu Lys Ile Gly Leu Lys Asp Ala Gly 185 Gln Cys Ile Asn Pro Tyr Ile Thr Val Ser Val Lys Asp Leu Asn Gly 195 200 Ile Asp Leu Thr Pro Val Gln Asp Thr Pro Val Ala Ser Arg Lys Glu 210 215 220 Asp Thr Tyr Val His Phe Asn Val Asp Ile Glu Leu Gln Lys His Val 225 230 235 Glu Lys Leu Thr Lys Gly Ala Ala Ile Phe Phe Glu Phe Lys His Tyr 245 250 Lys Pro Lys Lys Arg Phe Thr Ser Thr Lys Cys Phe Ala Phe Met Glu 260 265 Met Asp Glu Ile Lys Leu Gly Pro Ile Val Ile Glu Leu Tyr Lys Lys 280 Pro Thr Asp Phe Lys Arg Lys Gln Leu Gln Leu Leu Thr Lys Lys Pro 290 295 300 Leu Tyr Leu His Leu His Gln Thr Leu His Lys Glu 310

<210> 1378 <211> 90 <212>Amino acid <213> Homo sapiens

<210> 1379

<211> 332 <212>Amino acid <213> Homo sapiens

<400> 1379 Lys Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser 5 10 Pro Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala Thr 20 25 His Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp Ile Leu 40 Cys Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val Leu Ala Pro 55 Thr His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln Lys Glu Thr Asp 70 75 Cys Asp Leu Cys Leu Arg Val Ala Val His Leu Ala Val His Gly His 85 90 Trp Glu Glu Pro Glu Asp Glu Glu Lys Phe Gly Gly Ala Ala Asp Ser 100 105 Gly Val Glu Glu Pro Arg Asn Ala Ser Leu Gln Ala Gln Val Val Leu 120 Ser Phe Gln Ala Tyr Pro Thr Ala Arg Cys Val Leu Leu Glu Val Gln 135 140 Val Pro Ala Ala Leu Val Gln Phe Gly Gln Ser Val Gly Ser Val Val 150 155 Tyr Asp Cys Phe Glu Ala Ala Leu Gly Ser Glu Val Arg Ile Trp Ser 165 170 Tyr Thr Gln Pro Arg Tyr Glu Lys Glu Leu Asn His Thr Gln Gln Leu 185 190 Pro Asp Cys Arg Gly Leu Glu Val Trp Asn Ser Ile Pro Ser Cys Trp 200 205 Ala Leu Pro Trp Leu Asn Val Ser Ala Asp Gly Asp Asn Val His Leu 215 220 Val Leu Asn Val Ser Glu Glu Gln His Phe Gly Leu Ser Leu Tyr Trp 230 235 Asn Gln Val Gln Gly Pro Pro Lys Pro Arg Trp His Lys Asn Leu Val 245 250 Arg Pro Pro Pro Ser Gln Val His Ser His Cys Arg Pro Cys Leu Cys 260 265 Lys Asp Ala Val Pro Tyr Gln Arg Gly Ser Leu Lys Arg Thr His Pro 280 Lys Gln Gly Lys Ile Gly Gly Gly Thr Ser Ala Phe Leu Val Ser Leu 295 300 Thr Leu Ala Ser Ser Ser Ser Ser Leu Ser Ser Pro Thr Ser Phe Leu 310 315 Tyr Leu Phe His Arg Leu Asp Arg Arg Ser Leu Pro 325 330 332

<210> 1380 <211> 117 <212>Amino acid <213> Homo sapiens

 $^{<\!400>}$ 1380 Leu Arg Leu Trp Asn Arg Asn Gln Met Met His Asn Ile Ile Val Lys

Glu Leu Ile Val Thr Phe Phe Leu Gly Ile Thr Val Val Gln Met Leu 25 Ile Ser Val Thr Gly Leu Lys Gly Val Glu Ala Gln Asn Gly Ser Glu 40 Ser Glu Val Phe Val Gly Lys Tyr Glu Thr Leu Val Phe Tyr Trp Pro 55 Ser Leu Leu Cys Leu Ala Phe Leu Leu Gly Arg Phe Leu His Met Phe 70 75 Val Lys Ala Leu Arg Val His Leu Gly Trp Glu Leu Gln Val Glu Glu 90 Lys Ser Val Leu Glu Val His Gln Gly Glu His Val Lys Gln Leu Leu 100 105 Arg Ile Pro Arg Pro 115 117

<210> 1381 <211> 216 <212>Amino acid <213> Homo sapiens

<400> 1381 Lys Val Asn Arg Lys Leu Arg Lys Lys Gly Lys Ile Ser His Asp Lys 5 10 Arg Lys Lys Ser Arg Ser Lys Ala Ile Gly Ser Asp Thr Ser Asp Ile Val His Ile Trp Cys Pro Glu Gly Met Lys Thr Ser Asp Ile Lys Glu Leu Asn Ile Val Leu Pro Glu Phe Glu Lys Thr His Leu Glu His Gln 55 Gln Arg Ile Glu Ser Lys Val Cys Lys Ala Ala Ile Ala Thr Phe Tyr 70 Val Asn Val Lys Glu Gln Phe Ile Lys Met Leu Lys Glu Ser Gln Met Leu Thr Asn Leu Lys Arg Lys Asn Ala Lys Met Ile Ser Asp Ile Glu 105 Lys Lys Arg Gln Arg Met Ile Glu Val Gln Asp Glu Leu Leu Arg Leu 120 Glu Pro Gln Leu Lys Gln Leu Gln Thr Lys Tyr Asp Glu Leu Lys Glu 135 140 Arg Lys Ser Ser Leu Arg Asn Ala Ala Tyr Phe Leu Ser Asn Leu Lys 150 155 Gln Leu Tyr Gln Asp Tyr Ser Asp Val Gln Ala Gln Glu Pro Asn Val 165 170 Lys Glu Thr Tyr Asp Ser Ser Ser Leu Pro Ala Leu Leu Phe Lys Ala 185 Arg Thr Leu Leu Gly Ala Glu Ser His Leu Arg Asn Ile Asn His Gln 200 Leu Glu Lys Leu Leu Asp Gln Gly 215 216

<211> 137 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<210> 1382

<222> (1)...(137) <223> X = any amino acid or stop code

<400> 1382 Val Trp Val Ala Met Glu Glu Pro Pro Val Arg Glu Glu Glu Xaa Glu 10 Glu Gly Glu Glu Asp Glu Glu Arg Asp Glu Val Gly Pro Glu Gly Ala Leu Gly Lys Ser Pro Phe Gln Leu Thr Ala Glu Asp Val Tyr Asp Ile Ser Tyr Leu Leu Gly Arg Glu Leu Met Ala Leu Gly Ser Asp Pro Arg Val Thr Gln Leu Gln Phe Lys Val Val Arg Val Leu Glu Met Leu Glu 70 75 Ala Leu Val Asn Glu Gly Ser Leu Ala Leu Glu Glu Leu Lys Met Glu 85 90 Arg Asp His Leu Arg Lys Glu Val Glu Gly Leu Arg Arg Gln Ser Pro 105 Pro Ala Ser Gly Glu Trp Pro Asp Ser Thr Lys Arg Arg Pro Arg Arg 120 Lys Lys Arg Lys Arg Cys Cys Gly Tyr 135

<210> 1383 <211> 90 <212>Amino acid <213> Homo sapiens

<210> 1384 <211> 166 <212>Amino acid <213> Homo sapiens

<400> 1384
Thr His Ala Ser Glu Lys Ser Arg Ala Thr Met Ser Ser Trp Ser Arg
1 5 10 15

Gln Arg Pro Lys Ser Pro Gly Gly Ile Gln Pro His Val Ser Arg Thr 25 Leu Phe Leu Leu Leu Leu Ala Ala Ser Ala Trp Gly Val Thr Leu 40 Ser Pro Lys Asp Cys Gln Val Phe Arg Ser Asp His Gly Ser Ser Ile 55 Ser Cys Gln Pro Pro Ala Glu Ile Pro Gly Tyr Leu Pro Ala Asp Thr 70 75 Val His Leu Ala Val Glu Phe Phe Asn Leu Thr His Leu Pro Ala Asn 85 90 Leu Leu Gln Gly Ala Ser Lys Leu Gln Glu Leu His Leu Ser Ser Asn 100 105 Gly Leu Glu Ser Leu Ser Pro Glu Phe Leu Arg Pro Val Pro Gln Leu 115 120 125 Arg Val Leu Asp Leu Thr Arg Asn Ala Leu Thr Gly Leu Pro Pro Gly 130 135 140 Leu Phe Gln Ala Ser Ala Thr Leu Asp Thr Leu Val Leu Lys Glu Asn 150 155 Gln Leu Glu Val Leu Glu 165 166

<210> 1385 <211> 164 <212>Amino acid <213> Homo sapiens

<400> 1385 Glu Arg Pro Arg Ile Met Asp Leu Ala Gly Leu Leu Lys Ser Gln Phe 10 Leu Cys His Leu Val Phe Cys Tyr Val Phe Ile Ala Ser Gly Leu Ile 25 Ile Asn Thr Ile Gln Leu Phe Thr Leu Leu Leu Trp Pro Ile Asn Lys 40 Gln Leu Phe Arg Lys Ile Asn Cys Arg Leu Ser Tyr Cys Ile Ser Ser 55 Gln Leu Val Met Leu Leu Glu Trp Trp Ser Gly Thr Glu Cys Thr Ile 70 Phe Thr Asp Pro Arg Ala Tyr Leu Lys Tyr Gly Lys Glu Asn Ala Ile 90 Val Val Leu Asn His Lys Phe Glu Ile Asp Phe Leu Cys Gly Trp Ser 100 105 Leu Ser Glu Arg Phe Gly Leu Leu Gly Val Ser Gln Lys Cys Ile Pro 120 125 Pro Cys Leu Thr His Phe Phe Gly Ser Ala Pro Pro Leu Val Phe Leu 135 140 Leu Leu Val Ile Gln Asn Leu Gln Lys Asn Gln Gln Ser Phe Tyr Leu 145 150 155 Met Lys Trp Ser

164

<210> 1386 <211> 289 <212>Amino acid

<213> Homo sapiens

<400> 1386 Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly 10 Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly 25 Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Ala Glu 55 . 60 Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 70 75 Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys 8.5 90 Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg 105 Thr Leu Val Asp Asn Asp Gln Glu Pro Pro Tyr Ser Met Ile Thr Leu 120 125 His Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Scr 135 140 Leu Ile Arg Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile 150 155 Thr Leu Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln 165 170 Lys Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp 180 185 Ser Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys 200 Leu Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro 215 220 Gly Ile Leu Glu Tyr Leu Leu Gln Cys Leu Leu Gln Ser His Pro Thr 230 235 Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser 250 Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val 265 270 Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly 289

<210> 1387 <211> 320 <212>Amino acid <213> Homo sapiens

<400> 1387 Arg Phe Gly Thr Arg Gly Leu Ala Lys Ser Lys Gly Val Val Leu Met 10 Ala Leu Cys Ala Leu Thr Arg Ala Leu Arg Ser Leu Asn Leu Ala Pro 20 25 Pro Thr Val Ala Ala Pro Ala Pro Ser Leu Phe Pro Ala Ala Gln Met 40 Met Asn Asn Gly Leu Leu Gln Gln Pro Ser Ala Leu Met Leu Leu Pro 55 60 Cys Arg Pro Val Leu Thr Ser Val Ala Leu Asn Ala Asn Phe Val Ser 70 75 Trp Lys Ser Arg Thr Lys Tyr Thr Ile Thr Pro Val Lys Met Arg Lys 90

Ser Gly Gly Arg Asp His Thr Gly Arg Ile Arg Val His Gly Ile Gly 105 Gly Gly His Lys Gln Arg Tyr Arg Met Ile Asp Phe Leu Arg Phe Arg 120 Pro Glu Glu Thr Lys Ser Gly Pro Phe Glu Glu Lys Val Ile Gln Val 130 135 140 Arg Tyr Asp Pro Cys Arg Ser Ala Asp Ile Ala Leu Val Ala Gly Gly 150 155 Ser Arg Lys Arg Trp Ile Ile Ala Thr Glu Asn Met Gln Ala Gly Asp 165 170 Thr Ile Leu Asn Ser Asn His Ile Gly Arg Met Ala Val Ala Ala Arg 185 Glu Gly Asp Ala His Pro Leu Gly Ala Leu Pro Val Gly Thr Leu Ile 200 Asn Asn Val Glu Ser Glu Pro Gly Arg Gly Ala Gln Tyr Ile Arg Ala 215 220 Ala Gly Thr Cys Gly Val Leu Leu Arg Lys Val Asn Gly Thr Ala Ile 230 235 Ile Gln Leu Pro Ser Lys Arg Gln Met Gln Val Leu Glu Thr Cys Val 245 250 Ala Thr Val Gly Arg Val Ser Asn Val Asp His Asn Lys Arg Val Ile 260 265 Gly Lys Ala Gly Arg Asn Arg Trp Leu Gly Lys Arg Pro Asn Ser Gly 275 280 Arg Trp His Arg Lys Gly Gly Trp Ala Gly Arg Lys Ile Arg Pro Leu 295 300 Pro Pro Met Lys Ser Tyr Val Lys Leu Pro Ser Ala Ser Ala Gln Ser 310

<210> 1388 <211> 140 <212>Amino acid <213> Homo sapiens

<400> 1388 Pro Val Gln Gly Ala Arg Cys Trp Leu Asp Ala Arg Arg Asn Val Arg 10 Val Phe Ser Gly Val Cys Cys Gly Cys Gly Ile His Gly Tyr Trp Ala 20 25 Glu Pro Cys Gly Gly Cys Gly Ala Met Glu Gly Leu Arg Ser Ser Val 40 Glu Leu Asp Pro Glu Leu Thr Pro Gly Lys Leu Asp Glu Glu Met Val 55 Gly Leu Pro Pro His Asp Ala Ser Pro Gln Val Thr Phe His Ser Leu 70 75 80 Asp Gly Lys Thr Val Val Cys Pro His Phe Met Gly Leu Leu Gly 85 90 Leu Leu Leu Leu Thr Leu Ser Val Arg Asn Gln Leu Cys Val Arg 100 105 110 Gly Glu Arg Gln Leu Ala Glu Thr Leu His Ser Gln Val Lys Glu Lys 115 120 125 Ser Gln Leu Ile Gly Lys Lys Thr Asp Cys Arg Asp 135

<210> 1389 <211> 448

<212>Amino acid <213> Homo sapiens

<400> 1389 Gly Ala Arg Gly Arg Pro Leu Ala Glu Thr Trp Pro Phe Leu Thr Ala Pro Val Leu Pro Gly Gln Leu Gln Ile Thr Glu Pro Thr Met Ala Glu Lys Gly Asp Cys Ile Ala Ser Val Tyr Gly Tyr Asp Leu Gly Gly Arg Phe Val Asp Phe Gln Pro Leu Gly Phe Gly Val Asn Gly Leu Val Leu Ser Ala Val Asp Ser Arg Ala Cys Arg Lys Val Ala Val Lys Lys Ile Ala Leu Ser Asp Ala Arg Ser Met Lys His Ala Leu Arg Glu Ile Lys 90 Ile Ile Arg Arg Leu Asp His Asp Asn Ile Val Lys Val Tyr Glu Val 105 Leu Gly Pro Lys Gly Thr Asp Leu Gln Gly Glu Leu Phe Lys Phe Ser 120 Val Ala Tyr Ile Val Gln Glu Tyr Met Glu Thr Asp Leu Ala Arg Leu 135 Leu Glu Gln Gly Thr Leu Ala Glu Glu His Ala Lys Leu Phe Met Tyr 150 155 Gln Leu Leu Arg Gly Leu Lys Tyr Ile His Ser Ala Asn Val Leu His 170 Arg Asp Leu Lys Pro Ala Asn Ile Phe Ile Ser Thr Glu Asp Leu Val 185 Leu Lys Ile Gly Asp Phe Gly Leu Ala Arg Ile Val Asp Gln His Tyr 200 Ser His Lys Gly Tyr Leu Ser Glu Gly Leu Val Thr Lys Trp Tyr Arg 215 220 Ser Pro Arg Leu Leu Ser Pro Asn Asn Tyr Thr Lys Ala Ile Asp 230 235 Met Trp Ala Ala Gly Cys Ile Leu Ala Glu Met Leu Thr Gly Arg Met 250 Leu Phe Ala Gly Ala His Glu Leu Glu Gln Met Gln Leu Ile Leu Glu 265 Thr Ile Pro Val Ile Arg Glu Glu Asp Lys Asp Glu Leu Leu Arg Val 280 Met Pro Ser Phe Val Ser Ser Thr Trp Glu Val Lys Arg Pro Leu Arg 295 300 Lys Leu Leu Pro Glu Val Asn Ser Glu Ala Ile Asp Phe Leu Glu Lys 310 315 Ile Leu Thr Phe Asn Pro Met Asp Arg Leu Thr Ala Glu Met Gly Leu 325 330 Gln His Pro Tyr Met Ser Pro Tyr Ser Cys Pro Glu Asp Glu Pro Thr 340 345 Ser Gln His Pro Phe Arg Ile Glu Asp Glu Ile Asp Asp Ile Val Leu 360 Met Ala Ala Asn Gln Ser Gln Leu Ser Asn Trp Asp Thr Cys Ser Ser 375 Arg Tyr Pro Val Ser Leu Ser Ser Asp Leu Glu Trp Arg Pro Asp Arg 390 395 Cys Gln Asp Ala Ser Glu Val Gln Arg Asp Pro Arg Ala Gly Ser Ala 410 Pro Leu Ala Glu Asn Val Gln Val Asp Pro Arg Lys Asp Ser His Ser 425 Ser Ser Ala Ser Cys Gln Ala Gly Arg Asn Gly Val Ser Arg Tyr Gln 440 445

<210> 1390 <211> 815 <212>Amino acid <213> Homo sapiens

<400> 1390 Met Arg Thr Leu Gly Thr Cys Leu Ala Thr Leu Ala Gly Leu Leu Leu Thr Ala Ala Gly Glu Thr Phe Ser Gly Gly Cys Leu Phe Asp Glu Pro Tyr Ser Thr Cys Gly Tyr Ser Gln Ser Glu Gly Asp Asp Phe Asn Trp 40 Glu Gln Val Asn Thr Leu Thr Lys Pro Thr Ser Asp Pro Trp Met Pro Ser Gly Ser Phe Met Leu Val Asn Ala Ser Gly Arg Pro Glu Gly Gln 70 75 Arg Ala His Leu Leu Leu Pro Gln Leu Lys Glu Asn Asp Thr His Cys 90 Ile Asp Phe His Tyr Phe Val Ser Ser Lys Ser Asn Ser Pro Pro Gly 100 105 Leu Leu Asn Val Tyr Val Lys Val Asn Asn Gly Pro Leu Gly Asn Pro 120 Ile Trp Asn Ile Ser Gly Asp Pro Thr Arg Thr Trp Asn Arg Ala Glu 135 140 Leu Ala Ile Ser Thr Phe Trp Pro Asn Phe Tyr Gln Val Ile Phe Glu 150 155 Val Ile Thr Ser Gly His Gln Gly Tyr Leu Ala Ile Asp Glu Val Lys 165 170 Val Leu Gly His Pro Cys Thr Arg Thr Pro His Phe Leu Arg Ile Gln 185 Asn Val Glu Val Asn Ala Gly Gln Phe Ala Thr Phe Gln Cys Ser Ala 195 200 Ile Gly Arg Thr Val Ala Gly Asp Arg Leu Trp Leu Gln Gly Ile Asp 215 Val Arg Asp Ala Pro Leu Lys Glu Ile Lys Val Thr Ser Ser Arg Arg 230 235 Phe Ile Ala Ser Phe Asn Val Val Asn Thr Thr Lys Arg Asp Ala Gly 245 250 Lys Tyr Arg Cys Met Ile Arg Thr Glu Gly Gly Val Gly Ile Ser Asn 265 Tyr Ala Glu Leu Val Val Lys Glu Pro Pro Val Pro Ile Ala Pro Pro 280 Gln Leu Ala Ser Val Gly Ala Thr Tyr Leu Trp Ile Gln Leu Asn Ala 295 300 Asn Ser Ile Asn Gly Asp Gly Pro Ile Val Ala Arg Glu Val Glu Tyr 310 315 Cys Thr Ala Ser Gly Ser Trp Asn Asp Arg Gln Pro Val Asp Ser Thr 325 330 Ser Tyr Lys Ile Gly His Leu Asp Pro Asp Thr Glu Tyr Glu Ile Ser 340 345 Val Leu Leu Thr Arg Pro Gly Glu Gly Gly Thr Gly Ser Pro Gly Pro 360 Ala Leu Arg Thr Arg Thr Lys Cys Ala Asp Pro Met Arg Gly Pro Arg 375 380 Lys Leu Glu Val Val Glu Val Lys Ser Arg Gln Ile Thr Ile Arg Trp

```
Glu Pro Phe Gly Tyr Asn Val Thr Arg Cys His Ser Tyr Asn Leu Thr
                              410
Val His Tyr Cys Tyr Gln Val Gly Gly Gln Glu Gln Val Arg Glu Glu
                  425
Val Ser Trp Asp Thr Glu Asn Ser His Pro Gln His Thr Ile Thr Asn
                      440
Leu Ser Pro Tyr Thr Asn Val Ser Val Lys Leu Ile Leu Met Asn Pro
        455
                           460
Glu Gly Arg Lys Glu Ser Gln Glu Leu Ile Val Gln Thr Asp Glu Asp
               470 475
Leu Pro Gly Ala Val Pro Thr Glu Ser Ile Gln Gly Ser Thr Phe Glu
            485 490 495
Glu Lys Ile Phe Leu Gln Trp Arg Glu Pro Thr Gln Thr Tyr Gly Val
         500
                          505
Ile Thr Leu Tyr Glu Ile Thr Tyr Lys Ala Val Ser Ser Phe Asp Pro
            520
Glu Ile Asp Leu Ser Asn Gln Ser Gly Arg Val Ser Lys Leu Gly Asn
         535
                                     540
Glu Thr His Phe Leu Phe Phe Gly Leu Tyr Pro Gly Thr Thr Tyr Ser
       550
                                 555
Phe Thr Ile Arg Ala Ser Thr Ala Lys Gly Phe Gly Pro Pro Ala Thr
            565
                             570
Asn Gln Phe Thr Thr Lys Ile Ser Ala Pro Ser Met Pro Ala Tyr Glu
        580
                          585
Leu Glu Thr Pro Leu Asn Gln Thr Asp Asn Thr Val Thr Val Met Leu
                       600
Lys Pro Ala His Ser Arg Gly Ala Pro Val Ser Val Tyr Gln Ile Val
                  615 620
Val Glu Glu Glu Arg Pro Arg Arg Thr Lys Lys Thr Thr Glu Ile Leu
                630 635
Lys Cys Tyr Pro Val Pro Ile His Phe Gln Asn Ala Ser Leu Leu Asn
            645
                             650
Ser Gln Tyr Tyr Phe Ala Ala Glu Phe Pro Ala Asp Ser Leu Gln Ala
                         665
Ala Gln Pro Phe Thr Ile Gly Asp Asn Lys Thr Tyr Asn Gly Tyr Trp
                       680
Asn Thr Pro Leu Leu Pro Tyr Lys Ser Tyr Arg Ile Tyr Phe Gln Ala
                   695
                                     700
Ala Ser Arg Ala Asn Gly Glu Thr Lys Ile Asp Cys Val Gln Val Ala
                710
                                 715
Thr Lys Gly Ala Ala Thr Pro Lys Pro Val Pro Glu Pro Glu Lys Gln
             725 -
                             730
Thr Asp His Thr Val Lys Ile Ala Gly Val Ile Ala Gly Ile Leu Leu
         740
                          745
Phe Val Ile Ile Phe Leu Gly Val Val Leu Val Met Lys Lys Arg Leu
                       760
Tyr Lys His Gly Ala Ser Ile Cys Ser Ala Ser Gly Glu Ala Ser Gly
                    775
Ser Phe Gln Ser Trp Arg Lys Ala Lys His Lys Gln Ala Cys Pro Met
                790
                                 795 800
Ala Arg Ala Gly Ala Arg Glu Arg Ala Gly Gly Cys Leu Lys Leu
             805
                             810 . 815
```

<210> 1391 <211> 142 <212>Amino acid

<213> Homo sapiens

<400> 1391

Gly Ile Arg Gln Leu Leu Gln Leu Ser Arg Ala Ser Met Ala Ala Arg 10 Lys Ser Trp Thr Ala Leu Arg Leu Cys Ala Thr Val Val Val Leu Asp 25 Met Val Val Cys Lys Gly Phe Val Gln Asp Leu Asp Glu Ser Phe Lys 40 Glu Asn Arg Asn Asp Asp Ile Trp Leu Val His Phe Tyr Ala Pro Trp 55 Cys Gly His Cys Lys Lys Leu Glu Pro Ile Trp Asn Glu Ala Gly Leu 70 75 Glu Met Lys Ser Ile Gly Ser Pro Val Lys Ala Gly Lys Met Asp Ala 85 90 Thr Ser Tyr Ser Ser Ile Ala Ser Glu Phe Gly Val Arg Gly Tyr Pro 105 Thr Ile Lys Leu Ala Leu Ile Arg Pro Leu Pro Ser Gln Gln Met Phe 120 Glu His Met His Lys Arg His Arg Val Phe Phe Val Tyr Val 140 135

<210> 1392 <211> 282 <212>Amino acid <213> Homo sapiens

<400> 1392 Gly Leu Val Ile Val Ile Ser His Phe Ser Pro Ser Pro Gly Leu Leu Pro Ala Thr Gln Ser Pro Ala Met Ser Asp Pro Ile Thr Leu Asn Val 20 25 Gly Gly Lys Leu Tyr Thr Thr Ser Leu Ala Thr Leu Thr Ser Phe Pro 40 Asp Ser Met Leu Gly Ala Met Phe Ser Gly Lys Met Pro Thr Lys Arg Asp Ser Gln Gly Asn Cys Phe Ile Asp Arg Asp Gly Lys Val Phe Arg 70 Tyr Ile Leu Asn Phe Leu Arg Thr Ser His Leu Asp Leu Pro Glu Asp 90 Phe Gln Glu Met Gly Leu Leu Arg Arg Glu Ala Asp Phe Tyr Gln Val 105 Gln Pro Leu Ile Glu Ala Leu Gln Glu Lys Glu Val Glu Leu Ser Lys 120 Ala Glu Lys Asn Ala Met Leu Asn Ile Thr Leu Asn Gln Arg Val Gln 135 140 Thr Val His Phe Thr Val Arg Glu Ala Pro Gln Ile Tyr Ser Leu Ser 150 155 Ser Ser Ser Met Glu Val Phe Asn Ala Asn Ile Phe Ser Thr Ser Cys 165 170 Leu Phe Leu Lys Leu Leu Gly Ser Lys Leu Phe Tyr Cys Ser Asn Gly 180 185 Asn Leu Ser Ser Ile Thr Ser His Leu Gln Asp Pro Asn His Leu Thr 200 Leu Asp Trp Val Ala Asn Val Glu Gly Leu Pro Glu Glu Glu Tyr Thr 215 220 Lys Gln Asn Leu Lys Arg Leu Trp Val Val Pro Ala Asn Lys Gln Ile 235 Asn Ser Phe Gln Val Phe Val Glu Glu Val Leu Lys Ile Ala Leu Ser 245 250 Asp Gly Phe Cys Ile Asp Ser Ser His Pro His Ala Leu Asp Phe Met 265

<210> 1393 <211> 308 <212>Amino acid <213> Homo sapiens

<400> 1393 Ser Cys Ala Asp Asn Leu Val Ala Ala Ser Gly Gly Cys Trp Phe Val 10 Leu Gly Glu Arg Arg Ala Gly Ser Leu Leu Ser Ala Ser Tyr Gly Thr Phe Ala Met Pro Gly Met Val Leu Phe Gly Arg Arg Trp Ala Ile Ala Ser Asp Asp Leu Val Phe Pro Gly Phe Phe Glu Leu Val Val Arg Val 55 Leu Trp Trp Ile Gly Ile Leu Thr Leu Tyr Leu Met His Arg Gly Lys 70 Leu Asp Cys Ala Gly Gly Ala Leu Leu Ser Ser Tyr Leu Ile Val Leu Met Ile Leu Leu Ala Val Val Ile Cys Thr Val Ser Ala Ile Met Cys 100 105 Val Ser Met Arg Gly Thr Ile Cys Asn Pro Gly Pro Arg Lys Ser Met 120 125 Ser Lys Leu Leu Tyr Ile Arg Leu Ala Leu Phe Phe Pro Glu Met Val 135 140 Trp Ala Ser Leu Gly Ala Ala Trp Val Ala Asp Gly Val Gln Cys Asp 150 1.55 Arg Thr Val Val Asn Gly Ile Ile Ala Thr Val Val Val Ser Trp Ile 170 Ile Ile Ala Ala Thr Val Val Ser Ile Ile Ile Val Phe Asp Pro Leu 185 Gly Gly Lys Met Ala Pro Tyr Ser Ser Ala Gly Pro Ser His Leu Asp 195 200 205 Ser His Asp Ser Ser Gln Leu Leu Asn Gly Leu Lys Thr Ala Ala Thr 215 220 Ser Val Trp Glu Thr Arg Ile Lys Leu Leu Cys Cys Cys Ile Gly Lys 230 235 Asp Asp His Thr Arg Val Ala Phe Ser Ser Thr Ala Glu Leu Phe Ser 245 250 Thr Tyr Phe Ser Asp Thr Asp Leu Val Pro Ser Asp Ile Ala Ala Gly 260 265 Leu Ala Leu Leu His Gln Gln Gln Asp Asn Ile Arg Asn Asn Gln Asp 280 Leu Pro Arg Trp Ser Ala Met Pro Gln Gly Ala Pro Arg Lys Leu Ile 290 295 Trp Met Gln Asn 305 308

<210> 1394 <211> 238 <212>Amino acid <213> Homo sapiens

<400> 1394 Phe Arg Ala Ala Thr Ala Ala Ala Lys Gly Asn Gly Gly Gly Gly 10 Arg Ala Gly Ala Gly Asp Ala Ser Gly Thr Arg Lys Lys Lys Gly Pro 25 Gly Pro Leu Ala Thr Ala Tyr Leu Val Ile Tyr Asn Val Val Met Thr 40 Ala Gly Trp Leu Val Ile Ala Val Gly Leu Val Arg Ala Tyr Leu Ala 55 Lys Gly Ser Tyr His Ser Leu Tyr Tyr Ser Ile Glu Lys Pro Leu Lys 70 Phe Phe Gln Thr Gly Ala Leu Leu Glu Ile Leu His Cys Ala Ile Gly 85 Ile Val Pro Ser Ser Val Val Leu Thr Ser Phe Gln Val Met Ser Arg 1.05 Val Phe Leu Ile Trp Ala Val Thr His Ser Val Lys Glu Val Gln Ser 120 125 Glu Asp Ser Val Leu Phe Val Ile Ala Trp Thr Ile Thr Glu Ile Ile 135 140 Arg Tyr Ser Phe Tyr Thr Phe Ser Leu Leu Asn His Leu Pro Tyr Leu 150 155 Ile Lys Arg Ala Arg Tyr Thr Leu Phe Ile Val Leu Tyr Pro Met Gly 165 170 175 Val Ser Gly Glu Leu Leu Thr Ile Tyr Ala Ala Leu Pro Phe Val Arg 185 190 Gln Ala Gly Leu Tyr Ser Ile Ser Leu Pro Asn Ser Thr Lys Lys Ile 200 Phe Leu Ile Ser Gln Val Trp Trp His Met Leu Ala Val Ser Ala Asp 215 220 Ala Lys Ala Ala Glu Met Pro Ala Val Leu Lys Pro Gly Pro 230 235

<210> 1395 <211> 231 <212>Amino acid <213> Homo sapiens

<400> 1395 Met Leu Thr Gly Val Gly Cys Leu Val Ser Ser Glu Ser Leu Ser Cys 10 Val Gln Cys Asn Ser Trp Glu Lys Ser Cys Val Asn Ser Ile Ala Ser 20 25 Glu Cys Pro Ser His Ala Asn Thr Ser Cys Ile Ser Ser Ser Ala Ser 40 Ser Ser Leu Glu Thr Pro Val Arg Leu Tyr Gln Asn Met Phe Cys Ser 55 Ala Glu Asn Cys Ser Glu Glu Thr His Ile Thr Ala Phe Thr Val His 70 Val Ser Ala Glu Glu His Phe His Phe Val Ser Gln Cys Cys Glu Gly 85 . 90 Lys Glu Cys Ser Asn Thr Ser Asp Ala Leu Asp Pro Pro Leu Lys Asn 100 110 105 Val Ser Ser Asn Ala Glu Cys Pro Ala Cys Tyr Glu Ser Asn Gly Thr 120 Ser Cys Arg Gly Lys Pro Trp Lys Cys Tyr Glu Glu Glu Gln Cys Val 140 135 Phe Leu Val Ala Glu Leu Lys Asn Asp Ile Glu Ser Lys Ser Leu Val 155

Leu Lys Gly Cys Ser Asn Val Ser Asn Ala Thr Cys Gln Phe Leu Ser
165

Gly Glu Asn Lys Thr Leu Gly Gly Val Ile Phe Arg Lys Phe Glu Cys
180

185

Ala Asn Val Asn Ser Leu Thr Pro Thr Ser Ala Pro Thr Thr Ser His
195

Asn Val Gly Ser Lys Ala Ser Leu Tyr Leu Leu Ala Leu Ala Ser Leu
210

215

Leu Leu Arg Gly Leu Leu Pro
225

226

Leu Leu Arg Gly Leu Leu Pro
227

226

Leu Leu Arg Gly Leu Leu Pro
227

227

228

Leu Leu Arg Gly Leu Leu Pro
226

<210> 1396 <211> 216 <212>Amino acid <213> Homo sapiens

<400> 1396 Val Pro Ala Arg Arg Arg Ala Met Glu Ile Gly Thr Glu Ile Ser Arg 10 Lys Ile Arg Ser Ala Ile Lys Gly Lys Leu Gln Glu Leu Gly Ala Tyr 2.0 25 Val Asp Glu Glu Leu Pro Asp Tyr Ile Met Val Met Val Ala Asn Lys 40 Lys Ser Gln Asp Gln Met Thr Glu Asp Leu Ser Leu Phe Leu Gly Asn 55 Asn Thr Ile Arg Phe Thr Val Trp Leu His Gly Val Leu Asp Lys Leu 70 75 Arg Ser Val Thr Thr Glu Pro Ser Ser Leu Lys Ser Ser Asp Thr Asn 8.5 9.0 Ile Phe Asp Ser Asn Val Pro Ser Asn Lys Ser Asn Phe Ser Arg Gly 1.00 105 Asp Glu Arg Arg His Glu Ala Ala Val Pro Pro Leu Ala Ile Pro Ser 120 Ala Arg Pro Glu Lys Arg Asp Ser Arg Val Ser Thr Ser Ser Gln Glu 135 140 Ser Lys Thr Thr Asn Val Arg Gln Thr Tyr Asp Asp Gly Ala Ala Thr 150 155 Arg Leu Met Ser Thr Val Lys Pro Leu Arg Glu Pro Ala Pro Ser Glu 165 170 Asp Val Ile Asp Ile Lys Pro Glu Pro Asp Asp Leu Ile Asp Glu Asp 185 190 Leu Asn Phe Val Gln Glu Lys Pro Leu Ser Gln Lys Lys Pro Thr Val Thr Leu Thr Tyr Cly Ser Ser Arg 210 215 216

<210> 1397 <211> 135 <212>Amino acid <213> Homo sapiens

<210> 1398 <211> 41 <212>Amino acid <213> Homo sapiens

<210> 1399 <211> 151 <212>Amino acid <213> Homo sapiens

Lys Ser Leu Pro Leu Gln Lys His Pro Lys Pro Ser Cys Gln Glu Asp 10 Gln Gly Leu Gly Arg Gly Ser Leu Ser Gly His Ser Pro Leu Thr Leu Leu Thr Phe Leu Thr Ser Cys Ala Leu Gly Asp Gln Gln Leu Leu Pro 40 Pro Arg Thr Ser Gly Ser Leu Cys Gln Glu Ser Met Ser Glu Gln Ser 55 60 Cys Gln Met Ser Glu Leu Arg Leu Leu Leu Gly Lys Cys Arg Ser 70 75 Gly Lys Ser Ala Thr Gly Asn Ala Ile Leu Gly Lys His Val Phe Lys Ser Lys Phe Ser Asp Gln Thr Val Ile Lys Met Cys Gln Arg Glu Ser 105 Trp Val Leu Arg Glu Arg Lys Val Val Val Ile Asp Thr Pro Asp Leu 120 Phe Ser Ser Ile Ala Cys Ala Glu Asp Lys Gln Arg Asn Ile Gln His 135

Leu Leu Glu Leu Ser Ala Pro 145 150 151

> <210> 1400 <211> 324 <212>Amino acid <213> Homo sapiens

<400> 1400 Phe Val Glu Thr Thr Val Ser Val Gln Ser Ala Glu Ser Ser Asp Ala 5 Leu Ser Trp Ser Arg Leu Pro Arg Ala Leu Ala Ser Val Gly Pro Glu 20 25 Glu Ala Arg Ser Gly Ala Pro Val Gly Gly Arg Trp Gln Leu Ser 40 Asp Arg Val Glu Gly Gly Ser Pro Thr Leu Gly Leu Leu Gly Gly Ser 55 Pro Ser Ala Gln Pro Gly Thr Gly Asn Val Glu Ala Gly Ile Pro Ser 70 75 Gly Arg Met Leu Glu Pro Leu Pro Cys Trp Asp Ala Ala Lys Asp Leu 90 Lys Glu Pro Gln Cys Pro Pro Gly Asp Arg Val Gly Val Gln Pro Gly 105 Asn Ser Arg Val Trp Gln Gly Thr Met Glu Lys Ala Gly Leu Ala Trp 120 Thr Arg Gly Thr Gly Val Gln Ser Glu Gly Thr Trp Glu Ser Gln Arg 135 140 Gln Asp Ser Asp Ala Leu Pro Ser Pro Glu Leu Leu Pro Gln Asp Gln 150 155 Asp Lys Pro Phe Leu Arg Lys Ala Cys Ser Pro Ser Asn Ile Pro Ala 165 170 Val Ile Ile Thr Asp Met Gly Thr Gln Glu Asp Gly Ala Leu Glu Glu 185 Thr Gln Gly Ser Pro Arg Gly Asn Leu Pro Leu Arg Lys Leu Ser Ser 200 Ser Ser Ala Ser Ser Thr Gly Phe Ser Ser Ser Tyr Glu Asp Ser Glu 215 Glu Asp Ile Ser Ser Asp Pro Glu Arg Thr Leu Asp Pro Asn Ser Ala 230 Phe Leu His Thr Leu Asp Gln Gln Lys Pro Arg Val Val Glu Ser Arg 245 250 Ser Val Thr Gln Ala Gly Val Gln Trp His Asp Ile Gly Ser Leu Gln 260 265 Pro Leu Pro Pro Trp Ile Glm Ala Ile Leu His Ala Ser Ala Phe Arg 280 Ile Ala Gly Thr Thr Gly Ala Cys His His Ala Arg Ile Ile Phe Gly 295 300 Phe Leu Val Glu Arg Gly Phe His His Val Gly Gln Asp Gly Leu Tyr 315 Leu Leu Ile Leu 324

<210> 1401 <211> 76 <212>Amino acid

<212>Amino acid <213> Homo sapiens

<220>

<221> misc feature <222> (1)...(76) <223> X = any amino acid or stop code

<210> 1402 <211> 102 <212>Amino acid <213> Homo sapiens

<400> 1402 Leu Ile Leu Ser Leu Pro Leu Leu Tyr Gly His Leu Lys Ser Tyr Thr 1 5 10 15 Phe Pro Ser Glu His Tyr Leu His Leu Leu Gln Thr Phe Ala Thr Phe 20 25 Asn Lys Tyr Leu Asn Val Cys Val Leu Ile Phe Ile His His Lys Pro 35 40 Val Val Pro Ala Ile Gln Gly Thr Asn Val Gly Gly Ser Leu Glu Pro Arg Arg Leu Arg Leu Gln Gln Ala Met Ile Val Pro Leu His Phe Gly 75 Leu Gly Asn Arg Val Arg Pro Cys Leu Lys Lys Gln Gln Gln Gln Gln 85 Gln Gln Gln Lys Lys 100 102

<210> 1403 <211> 124 <212>Amino acid <213> Homo sapiens <220> <221> misc feature <222> (1) ... (124)

<223> X = any amino acid or stop code

 $^{<\!400>}$ 1403 Årg Met Glu Thr Lys Pro Val Ile Thr Cys Leu Lys Thr Leu Leu Ile 1 5 10 15

```
Ile Tyr Ser Phe Val Phe Trp Ile Thr Gly Val Ile Leu Leu Ala Ala
                                25
Gly Val Trp Gly Lys Leu Thr Leu Gly Ser Tyr Ile Ser Leu Ile Ala
        3.5
                            40
Glu Asn Ser Thr Tyr Ala Pro Tyr Val Leu Ile Val Thr Gly Thr Thr
                        55
Ile Val Ala Tyr Pro Leu Val Xaa Phe Phe Phe Ser Tyr Ser Ser Gly
                    70
                                       75
Phe Ser Tyr Ile Leu Ala Val Arg Leu Ile Ala Gly Ile Ala Leu Val
                 85
Tyr Asn Tyr Ile Pro Arg Ser Ser Ser Arg Ala Leu Val Arg Leu Val
                              105
Val Leu Leu Arg Phe Leu Leu Ser Arg His Pro Ser
       115
                          120
```

<210> 1404 <211> 136 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(136) <223> X = any amino acid or stop code

<400> 1404 Asn Ala Glu His Pro Gly Met Asp Arg His Asp Leu Cys Gln Lys Ala 5 10 Lys Leu Ala Glu His Ala Glu Arg Asp Asp Met Ala Ala Cys Met 20 Lys Thr Val Thr Asp Gln Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu Leu Ser Asp Ala His Thr Asn Ala Val Xaa Ala Arg Arg Ser Ser 55 Trp Met Gly Ala Kaa Arg Ile Glu Gln Lys Thr Glu Gly Ala Asp Thr Gln Gln Gln Met Ala Pro Asp Cys Arg Glu Ile Phe Ala Thr Glu Leu Arg Asp Ile Cys Asp Asp Val Leu Ser Leu Leu Glu Lys Leu Leu Ile 100 105 Pro Asn Ala Ser His Ala Xaa Ser Leu Val Tyr Tyr Leu His Met Ile 120 Gly Asp Tyr Tyr Arg Tyr Trp Leu 135 136

<210> 1405 <211> 110 <212>Amino acid <212> Homo sapiens <220> <221> misc_feature <222> (1)...(110)

<223> X = any amino acid or stop code

MISSING AT THE TIME OF PUBLICATION

Gly Asn Asp Tyr Ser Leu Gly Leu Thr Pro Thr Gly Val Leu Val Phe 85 90 Glu Gly Asp Thr Lys Ile Gly Leu Phe Phe Trp Pro Lys Ile Thr Arg 100 105 Leu Asp Phe Lys Lys Asn Lys Leu Thr Leu Val Val Val Glu Asp Asp 115 120 125 Asp Gln Gly Lys Glu Gln Glu His Thr Phe Val Phe Arg Leu Asp His 135 140 Pro Lys Ala Cys Lys His Leu Trp Lys Cys Ala Val Glu His His Ala 150 155 Phe Phe Arg Leu Arg Gly Pro Val Gln Lys Ser Ser His Arg Ser Gly 165 170 Phe Ile Arg Leu Gly Ser Arg Phe Arg Tyr Ser Gly Lys Thr Glu Tyr 185 Gln Thr Thr Lys Thr Asn Lys Ala Arg Arg Ser Thr Ser Phe Glu Arg 200 205 Arg Pro Ser Lys Arg Tyr Ser Arg Arg Thr Leu Gln Met Lys Ala Cys 215 220 Ala Thr Lys Pro Glu Glu Leu Ser Val His Asn Asn Val Ser Thr Gln 230 235 Ser Asn Gly Ser Gln Gln Ala Trp Gly Met Arg Ser Ala Leu Pro Val 245 250 Ser Pro Ser Ile Ser Ser Ala Pro Val Pro Val Glu Ile Glu Asn Leu 260 265 Pro Gln Ser Pro Gly Thr Asp Gln His Asp Arg Lys Trp Leu Ser Ala 280 Ala Ser Asp Cys Cys Gln Arg Gly Gly Asn Gln Trp Asn Thr Arg Ala 295 Len 305

<210> 1408

<211> 92 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(92)

<223> X = any amino acid or stop code

<210> 1409 <211> 169 <212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(169) <223> X = any amino acid or stop code

<400> 1409

Ala Glu Gly Leu Gly Ser Trp Ala Val Trp Ala Gly Leu Gly Trp Ala Gly Arg His Met Glu Ala Gly Gly Ala Thr Gly Ala Leu Gly Val Gly Ser Lys Leu Pro Ser Ala Phe Cys Phe Pro Gly Ser Ser Val Ala Met 40 Asp Met Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly Val 55 Val Tyr Lys Ala Lys Asn Arg Glu Thr Gly Gln Leu Val Ala Leu Lys 70 75 Lys Ile Arg Leu Asp Leu Xaa Val Leu Gly Arg Pro Leu Ser Tyr Pro 85 90 Pro Trp Ala Ile Thr Trp Ala Leu Pro Asp Pro Phe Pro Leu Ser 105 Trp Ser Pro Arg Leu Thr Pro Leu Gly Ala Ala Gln Gln Pro Leu Pro 120 125 Val Leu Ser Pro Val His Cys Leu Leu Thr Ser Leu Cys Arg Gly Pro 140 135 Asp Cys Gly Val Trp Trp Met Thr Cys Gln Gly Ala Gln Val Ser Ile 150 155 Ala Gly Ala Leu Val Ile Leu Trp Gly 165

<210> 1410 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1410

Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr Leu Gln Asn Gly Trp 10 Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe Arg Ala Gly Asp His 25 Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn Pro Val Arg Ala Val 40 Gln Glu Glu Thr Arg Asp Arg Phe His Leu Leu Gly Asp Pro Gln Asn 55 Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser Gln Asp Leu Leu Ser 105 Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr Val Gln Glu Gly Leu 120 125 Cys Val Ser Val Pro Trp Gln Cys Pro Leu Pro Pro Leu Gln Leu Asp 135 140

Cys Leu 145 146

> <210> 1411 <211> 250 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(250)

<223> X = any amino acid or stop code

<400> 1411 Gln Leu Gln Leu Cys Gln Asn Cys Thr Lys Arg Gly Glu Cys His Cys 5 10 Val Pro Phe Asp Thr Tyr Ile Lys Thr Lys Lys Glu Lys Lys Arg Leu 20 Ser Val Leu Pro Pro Thr Arg Leu Met Glu Ala Arg Phe Ser Pro Ile 3.5 Asn Gln Ile Leu Pro Trp Cys Arg Gln Asp Leu Ala Ile Ser Ile Ser 55 Lys Ala Ile Asn Thr Gln Glu Ala Pro Val Lys Glu Lys His Ala Arg 65 70 Arg Ile Ile Leu Gly Thr His His Glu Lys Gly Ala Phe Thr Phe Trp 90 Ser Tyr Ala Ile Gly Leu Pro Leu Pro Ser Ser Ser Ile Leu Ser Trp 100 105 Lys Phe Cys His Val Leu His Lys Val Leu Arg Asp Gly His Pro Asn 120 Val Leu His Asp Cys Gln Arg Tyr Arg Ser Asn Ile Arg Glu Ile Gly 135 140 Asp Leu Trp Gly His Leu His Asp Arg Tyr Gly Gln Leu Val Asn Val 150 155 Tyr Thr Lys Leu Leu Thr Lys Ile Ser Phe His Leu Lys His Pro 165 170 Gln Phe Pro Ala Gly Leu Glu Val Thr Asp Glu Val Leu Glu Lys Ala 185 Ala Gly Thr Asp Val Asn Asn Met Xaa Val Thr Leu His Gly Tyr Met 200 Ala Ser Ser Pro Arg Leu Pro His Ser Phe Leu Pro Arg Leu Thr Pro 215 Arg Arg Pro His Gly Ala Val Gly Leu Asn Glu Ser Val Ala Leu Leu 230 Val Asp Ala His Ala Pro Arg Asp Arg Gly

<211> 169
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(169)
<2233 X = any amino acid or stop code</pre>

245

<210> 1412

250

<400> 1412 Ala Ala Pro His Arg Met Pro Arg Ala Pro His Phe Met Pro Leu Leu 10 Leu Leu Leu Leu Leu Ser Leu Pro His Thr Gln Ala Ala Phe Pro 25 Gln Asp Pro Leu Pro Leu Leu Ile Ser Asp Leu Gln Gly Thr Ser Pro 40 Leu Ser Trp Leu Pro Ser Leu Glu Asp Asp Ala Val Ala Ala Xaa Leu 55 60 Gly Leu Asp Phe Gln Arg Phe Leu Thr Leu Asn Arg Thr Leu Leu Val 70 75 Ala Ala Arg Asp His Val Phe Ser Phe Asp Leu Gln Ala Glu Glu Glu 85 90 Gly Glu Gly Leu Val Pro Asn Lys Tyr Leu Thr Trp Arg Ser Gln Asp 105 Val Glu Asn Cys Ala Val Arg Kaa Lys Leu Thr Leu Asn Arg Thr Leu 120 Leu Val Ala Ala Arg Asp His Val Phe Ser Phe Asp Leu Gln Ala Glu 135 140 Glu Glu Gly Glu Gly Leu Val Pro Asn Lys Tyr Leu Thr Trp Arg Ser 150 155 Gln Asp Val Glu Asn Cys Ala Val Arg 165

<210> 1413
<211> 131
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)... (131)

<223> X = any amino acid or stop code

<400> 1413 His Leu Val Pro Lys Thr Arg Gly Arg Gly Thr Pro Ser Gly Asp Gln 10 Ser Pro Val Leu Thr Leu Thr Pro Xaa Gly Asp Pro Pro Thr Ile Leu 25 Gly Pro Gln Thr Asn Gln Pro Lys Glu His Leu Thr Asn Phe Lys Ser 40 Gly Lys Arg Ser Phe His Ser Leu Leu Gln Pro Leu Leu Leu Leu 55 His Pro Ser Ile Ser Pro Phe Leu Asn Phe Gly Ser Phe Pro Phe Leu 70 75 Val Glu Thr Glu Glu Thr Cys Phe Ile His Lys Leu Lys Thr Pro Ala 90 Leu Val Thr Pro Asp Ser Leu Pro Leu Val Phe Asn His Cys Gly Asp 100 105 110 Ala Cys Leu Ile Ile His Pro His Phe Arg Asp Val Glu Phe His His 115 120 125 Thr Gly Asn

<210> 1414

130 131

<211> 365 <212>Amino acid <213> Homo sapiens

<400> 1414

Cys Cys Ser Thr Lys Asn Ile Ser Gly Asp Lys Ala Cys Asn Leu Met 10 Ile Phe Asp Thr Arg Lys Thr Ala Arg Gln Pro Asn Cys Tyr Leu Phe 20 2.5 Phe Cys Pro Asn Glu Glu Ala Cys Pro Leu Lys Pro Ala Lys Gly Leu 35 40 Met Ser Tyr Arg Ile Ile Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu 55 Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe 70 75 Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys 85 90 Pro Thr Asp Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser 100 105 Ser Asp His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln 120 Leu Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser 135 140 Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala Leu 155 Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala Thr Pro 170 Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr Pro Ser Gly 185 Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro Val Thr Thr Val 200 Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr Val Phe Thr Arg Ala 215 220 Ala Ala Thr Leu Gln Ala Met Ala Thr Thr Ala Val Leu Thr Thr Thr 230 235 Phe Gln Ala Pro Thr Asp Ser Lys Gly Ser Leu Glu Thr Ile Pro Phe 245 250 Thr Glu Ile Ser Asn Leu Thr Leu Asn Thr Gly Asn Val Tyr Asn Pro 265 Thr Ala Leu Ser Met Ser Asn Val Glu Ser Ser Thr Met Asn Lys Thr 280 285 Ala Ser Trp Glu Gly Arg Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly 295 300 Ser Val Pro Glu Asn Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu 310 315 Ile Gly Ser Leu Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val 325 330 Leu Leu Gly Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser 340 345 350 Arg Leu Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile 355 360

<210> 1415 <211> 148 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(148) <223> X = any amino acid or stop code

<400> 1415 Ile Phe Ala Gly Ser Gly Val Met Arg Leu Lys Ile Ser Leu Leu Lys Glu Pro Lys His Gln Glu Leu Val Ser Cys Val Gly Trp Thr Thr Ala Glu Glu Leu Tyr Ser Cys Ser Asp Asp His His Ile Val Lys Trp Asn 40 Leu Leu Thr Ser Glu Thr Thr Gln Ile Val Lys Leu Pro Asp Asp Ile 55 Tyr Pro Ile Asp Phe His Trp Phe Pro Lys Ser Leu Gly Val Lys Lys 70 75 Gln Thr His Ala Glu Ser Phe Val Leu Thr Ser Ser Asp Gly Lys Phe 90 His Leu Ile Ser Lys Leu Gly Arg Val Glu Lys Ser Val Glu Ala His 100 105 Cys Gly Ala Val Leu Ala Gly Arg Trp Asn Tyr Glu Gly Thr Ala Leu 120 125 Val Thr Val Gly Glu Asp Gly Gln Ile Xaa Ile Trp Ser Lys Thr Gly 135 Met Leu Ile Ser 145 148

<210> 1416 <211> 122 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature <222> (1)...(122)

<223> X = any amino acid or stop code

<400> 1416 Ala Arg Ala Thr Thr Lys Arg His Phe Ile Leu Leu Phe Leu Phe Phe 10 Leu Arg Arg Cys Leu Phe Leu Ser Pro Arg Met Glu Cys Asn Gly Ala 20 25 Ile Leu Ala His Cys Asn Leu His Leu Pro Gly Ser Ser Ser Ser Ser 40 Ala Ser Ala Ser Xaa Val Ala Gly Ile Thr Asp Val Arg His His Ala 55 Gln Leu Ile Leu Phe Val Phe Leu Val Glu Thr Gly Phe His Arg Val 70 Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Leu Leu Thr Ser 90 Ala Ser Gln Ser Ala Gly Ile Ile Met Gly Ile Ser His Cys Ala Gln 1.05 Pro Lys Lys Ala Phe Xaa Thr Lys Thr Phe 120 122

<210> 1417

<211> 138
<212>Amino acid
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(138)

<223> X = any amino acid or stop code

<400> 1417

Glu Ala Gly Ser Asn Asp Asp Leu Ala Thr Xaa Lys Thr Cys Gly Arg 1 Ala Arg Pro Ser Ser Arg Ser Arg Gln Phe Gly Ser Arg Val Trp Asn 20 His Arg Gln Gly Val Arg Ser Ser Pro Gly Glu Gly Ala Gly Ser Arg Ser Pro Cys Arg Arg Arg His Arg Arg Lys His Arg Arg Asn Val Gln Ser Pro Xaa Arg Arg Arg Ser Arg Ser Cys Ser Arg Arg Ser Gly Arg 70 75 Cys Ser Val Ala Leu Leu Gly Ala Cys Pro Val Ala Gly His Ser Arg 90 Gly Lys Val Val Cys Arg Arg Ala His Ala Ile Thr Gln Arg Arg Arg 105 Cys Cys Gly Phe Asp Pro Met Val His Pro Lys Glu His Arg Gly Xaa 120 Arg Glu Arg Ser Arg Lys Trp Ser Arg Ser 130 135 138

<210 > 1418
<211 > 92
<2112-3Amino acid
<213 > Homo sapiens
<220>
<2210 misc_feature
<2222 (1)...(92)
<2232 X = any amino acid or stop code</pre>

<400> 1418

<210> 1419

<211> 44 <212>Amino acid <213> Homo sapiens

<210> 1420 <211> 91 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} < 400 > 1420 \\ 1486 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1420 \\ 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \\ 1418 > 1418 \end{array} \begin{array}{c} < 400 > 1418 \\ 1418 >$

<210 > 1421
<211> 190
<212-2mmino acid
<213 Homo sapiens
<220>
<221 misc_feature
<222 (1)...(190)
<223 X = any amino acid or stop code</pre>

4400> 1421
61u Gly Ser Ser Gln Ala Asn Thr Leu Arg Ser Arg Lys Glu Asn Arg
1
1
5
10
10
15
15
15
10
15
15
10
15
10
10
12
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10

Glu Leu Glu Pro Trp Gln Lys Lys Val Lys Glu Val Glu Asp Asp Asp 70 Asp Asp Glu Pro Ile Phe Val Gly Glu Ile Ser Ser Ser Lys Pro Ala 85 90 Ile Ser Asn Ile Leu Asn Arg Val Asn Pro Ser Ser Tyr Ser Arg Gly Leu Lys Asn Gly Ala Leu Ser Arg Gly Ile Thr Ala Ala Phe Lys Pro 120 Thr Ser Gln His Tyr Thr Asn Pro Thr Ser Asn Pro Val Pro Ala Ser 140 135 Pro Ile Asn Phe His Pro Glu Ser Arg Ser Ser Asp Ser Ser Val Ile 155 150 Gly Gln Pro Phe Ser Lys Pro Val Ser Val Ser Lys Thr Ile Arg Pro 170 Ala Gln Gly Ser Ile Gly Cys Cys Leu Ser Ile Ser Thr Val 185

<210> 1422 <211> 207 <212>Amino acid <213> Homo sapiens

<400> 1422 Cys Phe Ser Leu Glu Asp Ile Leu Asn Phe Phe Leu Gln Gly Phe Ser 10 Ala Gly Leu Phe Ala Phe Tyr His Asp Lys Asp Gly Asn Pro Leu Thr 20 Ser Arg Phe Ala Asp Gly Leu Pro Pro Phe Asn Tyr Ser Leu Gly Leu Tyr Gln Trp Ser Asp Lys Val Val Arg Lys Val Glu Arg Leu Trp Asp 55 Val Arg Asp Asn Lys Ile Val Arg His Thr Val Tyr Leu Leu Val Thr 70 Pro Arg Val Val Glu Glu Ala Arg Lys His Phe Asp Cys Pro Val Leu 90 Glu Gly Met Glu Leu Glu Asn Gln Gly Gly Val Gly Thr Glu Leu Asn 105 His Trp Glu Lys Arg Leu Leu Glu Asn Glu Ala Met Thr Gly Ser His 120 Thr Gln Asn Arg Val Leu Ser Arg Ile Thr Leu Ala Leu Met Glu Asp 135 140 Thr Gly Arg Gln Met Leu Ser Pro Tyr Cys Asp Thr Leu Arg Ser Asn 150 155 Pro Leu Gln Leu Thr Cys Arg Gln Asp Gln Arg Ala Val Ala Val Cys 165 170 Asn Leu Gln Lys Phe Pro Lys Pro Leu Pro Gln Glu Tyr Gln Tyr Phe 185 Asp Glu Leu Ser Gly Ile Pro Ala Glu Asp Leu Pro Tyr Tyr Gly 200

<210> 1423 <211> 423

<212>Amino acid

<213> Homo sapiens

```
<400> 1423
Ala Ala Arg Arg Arg Gln Leu Val Ser Arg Arg Arg Thr Ala Glu
Tyr Pro Arg Arg Arg Ser Ser Pro Ser Ala Arg Pro Pro Asp Val
Pro Gly Gln Gln Pro Lys Ala Ala Lys Ser Pro Ser Pro Val Gln Gly
Lys Lys Ser Pro Arg Leu Leu Cys Ile Glu Lys Val Thr Thr Asp Lys
                  55
                             60
Asp Pro Lys Glu Glu Lys Glu Glu Glu Asp Asp Ser Ala Leu Pro Gln
                  70
                                   75
Glu Val Ser Ile Ala Ala Ser Arg Pro Ser Arg Gly Trp Arg Ser Ser
              85
                               90
Arg Thr Ser Val Ser Arg His Arg Asp Thr Glu Asn Thr Arg Ser Ser
          100
                           105
Arg Ser Lys Thr Gly Ser Leu Gln Leu Ile Cys Lys Ser Glu Pro Asn
              120 125
Thr Asp Gln Leu Asp Tyr Asp Val Gly Glu Glu His Gln Ser Pro Gly
          135
                            140
Gly Ile Ser Ser Glu Glu Glu Glu Glu Glu Glu Glu Met Leu Ile
              150 155
Ser Glu Glu Glu Ile Pro Phe Lys Asp Asp Pro Arg Asp Glu Thr Tyr
             165 170
Lys Pro His Leu Glu Arg Glu Thr Pro Lys Pro Arg Arg Lys Ser Gly
          180
                 185
Lys Val Lys Glu Glu Lys Glu Lys Lys Glu Ile Lys Val Glu Val Glu
     195 200
Val Glu Val Lys Glu Glu Glu Asn Glu Ile Arg Glu Asp Glu Glu Pro
                    215
                                     220
Pro Arg Lys Arg Gly Arg Arg Lys Asp Asp Lys Ser Pro Arg Leu.
                                  235
Pro Lys Arg Arg Lys Lys Pro Pro Ile Gln Tyr Val Arg Cys Glu Met
             245
                              250
Glu Gly Cys Gly Thr Val Leu Ala His Pro Arg Tyr Leu Gln His His
                           265 270
Ile Lys Tyr Gln His Leu Leu Lys Lys Lys Tyr Val Cys Pro His Pro
                      280
                                         285
Ser Cys Gly Arg Leu Phe Arg Leu Gln Lys Gln Leu Leu Arg His Ala
                    295
                                     300
Lys His His Thr Asp Gln Arg Asp Tyr Ile Cys Glu Tyr Cys Ala Arg
                310
                                  315
Ala Phe Lys Ser Ser His Asn Leu Ala Val His Arg Met Ile His Thr
             325
                              330
Gly Glu Lys Pro Leu Gln Cys Glu Ile Cys Gly Phe Thr Cys Arg Gln
          340
                          345
Lys Ala Ser Leu Asn Trp His Met Lys Lys His Asp Ala Asp Ser Phe
                       360
Tyr Gln Phe Ser Cys Asn Ile Cys Gly Lys Lys Phe Glu Lys Lys Asp
                    375
Ser Val Val Ala His Lys Ala Lys Ser His Pro Glu Val Leu Ile Ala
                390
                               395
Glu Ala Leu Ala Ala Asn Ala Gly Ala Leu Ile Thr Ser Thr Asp Ile
             405 410
Leu Gly Thr Asn Pro Glu Ser
         420 423
```

<210> 1424 <211> 158 <212>Amino acid .

<213> Homo sapiens

<400> 1424 Met Thr Ala Asn Arg Leu Ala Glu Ser Leu Leu Ala Leu Ser Gln Gln 10 Glu Glu Leu Ala Asp Leu Pro Lys Asp Tyr Leu Leu Ser Glu Ser Glu 25 Asp Glu Gly Asp Asn Asp Gly Glu Arg Lys His Gln Lys Leu Leu Glu 40 Ala Ile Ser Ser Leu Asp Gly Lys Asn Arg Arg Lys Leu Ala Glu Arg 55 Ser Glu Ala Ser Leu Lys Val Ser Glu Phe Asn Val Ser Ser Glu Gly 70 Ser Gly Glu Lys Leu Val Leu Ala Asp Leu Leu Glu Pro Val Lys Thr 90 Ser Ser Ser Leu Ala Thr Val Lys Lys Gln Leu Ser Arg Val Lys Ser 100 105 Lys Lys Thr Val Glu Leu Pro Leu Asn Lys Glu Glu Ile Glu Arg Ile 120 His Arg Glu Val Ala Phe Asn Lys Thr Ala Gln Val Leu Ser Lys Trp 135 140 Asp Pro Val Val Leu Lys Asn Arg Gln Ala Glu Gln Leu * 150 155 157

<210> 1425 <211> 286

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(286)

<223> X = any amino acid or stop code

<400> 1425

Arg Ile Asp Phe Met Phe His Ser Ser Ala Met Val Asn Ser His Arg 5 Lys Pro Met Phe Asn Ile His Arg Gly Phe Tyr Cys Leu Thr Ala Ile 20 Leu Pro Gln Ile Cys Ile Cys Ser Gln Phe Ser Val Pro Ser Ser Tyr His Phe Thr Glu Asp Pro Gly Ala Phe Pro Val Ala Thr Asn Gly Glu Arg Phe Pro Trp Gln Glu Leu Arg Leu Pro Ser Val Val Ile Pro Leu 70 75 His Tyr Asp Leu Phe Val His Pro Asn Leu Thr Ser Leu Asp Phe Val 90 Ala Ser Glu Lys Ile Glu Val Leu Val Ser Asn Ala Thr Gln Leu Ile 105 Ile Leu His Ser Lys Asp Leu Glu Ile Thr Asn Ala Thr Leu Gln Sex 120 Glu Glu Asp Ser Arg Tyr Met Lys Pro Gly Lys Glu Leu Lys Val Leu 135 140 Ser Tyr Pro Ala His Glu Gln Ile Ala Leu Leu Val Pro Glu Lys Leu 150 155 Thr Pro His Leu Lys Tyr Tyr Val Ala Met Asp Phe Gln Ala Lys Leu 165 170 Gly Asp Gly Phe Glu Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Leu Gly

<210> 1426 <211> 224 <212>Amino acid <213> Homo sapiens

<400> 1426 Arg Ser Lys Ile Pro Arg Ser Asp Pro Arg Val Arg Thr Pro Ala Pro 5 , 10 Ala Glu Ala Glu Gln Gly Lys Ser Gln Cys Pro Ser Gly Ser Thr Ala 25 Gln Ser Trp Ser Ala Met Asp Ile Leu Val Pro Leu Leu Gln Leu Leu 35 40 Val Leu Leu Leu Thr Leu Pro Leu His Leu Met Ala Leu Leu Gly Cys 55 Trp Gln Pro Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu 70 75 Thr Pro Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe 85 Ser Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Leu 105 Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro Gly 115 120 Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys Phe Leu 130 135 140 Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu Arg Phe Val 150 155 160 Val Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp Gly Ser Met Asp 165 170 Val Val Cys Thr Leu Val Leu Cys Ser Val Gln Ser Pro Arg Lys 185 Val Leu Gln Glu Val Arg Arg Val Leu Arg Pro Gly Gly Val Leu Phe 200 Phe Trp Glu His Val Ala Glu Pro Tyr Gly Ser Trp Ala Phe Met Trp 215 220

<210> 1427

<211> 133

<212>Amino acid

<213> Homo sapiens

<400> 1427 Arg Leu Gln Asn Ser Ser Leu Met Asp Pro Lys Leu Gly Arg Met Ala 1 5 10 Ala Ser Leu Leu Ala Val Leu Leu Leu Leu Leu Leu Glu Arg Gly Met 20 25 Phe Ser Ser Pro Ser Pro Pro Pro Ala Leu Leu Glu Lys Val Phe Gln 45 Tyr Ile Asp Leu His Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp 5.5 Val Ala Ile Glu Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln 65 70 75 Glu Leu Phe Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu 90 Gly Ala Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp 100 105 Gly Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser 115 1.20 Asp Pro Thr Lys Gly 130 133

<210> 1428 <211> 38 <212>Amino acid <213> Homo sapiens

<210> 1429 <211> 145 <212>Amino acid <213> Homo sapiens

100 105 Thr Gln Gln Lys Ser Asn Leu Glu Leu Leu Arg Ile Ser Leu Leu Leu 120 Ile Glu Ser Trp Leu Glu Pro Val Arg Ile Leu Met Ser Ile Val Pro 135

145

<210> 1430 <211> 453 <212>Amino acid <213> Homo sapiens

<400> 1430 Phe Val Lys Leu Ile Lys Lys His Gln Ala Ala Met Glu Lys Glu Ala 10 Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln Gln His Ile Gln Ala 2.0 25 Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu Ser Gln Lys Arg Glu Tyr Lys Leu Arg Lys Glu Gln Leu Lys Glu Glu Leu Asn Glu Asn Gln Ser Thr Pro Lys Lys Glu Lys Gln Glu Trp Leu Ser Lys Gln Lys Glu 70 Asn Ile Gln His Phe Gln Ala Glu Glu Glu Ala Asn Leu Leu Arg Arg 90 Gln Arg Gln Tyr Leu Glu Leu Glu Cys Arg Arg Phe Lys Arg Arg Met 105 Leu Leu Gly Arg His Asn Leu Glu Gln Asp Leu Val Arg Glu Glu Leu 120 Asn Lys Arg Gln Thr Gln Lys Asp Leu Glu His Ala Met Leu Leu Arg 135 140 Gln His Glu Ser Met Gln Glu Leu Glu Phe Arg His Leu Asn Thr Ile 150 155 Gln Lys Met Arg Cys Glu Leu Ile Arg Leu Gln His Gln Thr Glu Leu 170 Thr Asn Gln Leu Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu Arg Arg 185 Lys His Val Met Glu Val Arg Gln Gln Pro Lys Ser Leu Lys Ser Lys 200 Glu Leu Gln Ile Lys Lys Gln Phe Gln Asp Thr Cys Lys Ile Gln Thr 215 Arg Gln Tyr Lys Ala Leu Arg Asn His Leu Leu Glu Thr Thr Pro Lys 230 235 Ser Glu His Lys Ala Val Leu Lys Arg Leu Lys Glu Glu Gln Thr Arg 250 Lys Leu Ala Ile Leu Ala Glu Gln Tyr Asp His Ser Ile Asn Glu Met 265 Leu Ser Thr Gln Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys 280 285 Gln Val Leu Lys Met Gln Leu Gln Gln Glu Leu Glu Leu Leu Asn Ala 295 300 Tyr Gln Ser Lys Ile Lys Met Gln Ala Glu Ala Gln His Asp Arg Glu 310 315 Leu Arg Glu Leu Glu Gln Arg Val Ser Leu Arg Arg Ala Leu Leu Glu 325 330 Gln Lys Ile Glu Glu Glu Met Leu Ala Leu Gln Asn Glu Arg Thr Glu 340 345

Arg Ile Arg Ser Leu Leu Glu Arg Gln Ala Arg Glu Ile Glu Ala Phe

355 360 365 Asp Ser Glu Ser Met Arg Leu Gly Phe Ser Asn Met Val Leu Ser Asn 370 375 380 Leu Ser Pro Glu Ala Phe Ser His Ser Tyr Pro Gly Ala Ser Gly Trp 390 395 Ser His Asn Pro Thr Gly Gly Pro Gly Pro His Trp Gly His Pro Met Gly Gly Pro Pro Gln Ala Trp Gly His Pro Met Gln Gly Gly Pro Gln 425 Pro Trp Gly His Pro Ser Gly Pro Met Gln Gly Val Pro Arg Gly Ser 440 Ser Met Gly Val Arg 450 453

<210> 1431 <211> 151 <212>Amino acid <213> Homo sapiens

<400> 1431 Leu Ala His Gly Ser Phe Gly Val Ser Asp Phe Pro Ala Pro Ala Ala 1 5 10 Ala Pro Ala His Thr Leu Thr Ser Phe Ser Gly Ser Leu Ser Pro Gln 2.0 Phe Arg Lys Pro Leu Gly Arg Ala Pro Ala Met Pro Leu Val Arg Tyr 35 40 Arg Lys Val Val Ile Leu Gly Tyr Arg Cys Val Gly Lys Thr Ser Leu 55 Ala His Gln Phe Val Glu Gly Glu Phe Ser Glu Gly Tyr Asp Pro Thr 70 75 Val Glu Asn Thr Tyr Ser Lys Ile Val Thr Leu Gly Lys Asp Glu Phe 90 His Leu His Leu Val Asp Thr Ala Gly Gln Asp Glu Tyr Ser Ile Leu 105 Pro Tyr Ser Phe Ile Ile Gly Val His Gly Tyr Val Leu Val Tyr Ser 120 Val Thr Ser Leu His Ser Phe Gln Val Ile Glu Ser Leu Tyr Gln Lys 135 Leu His Glu Gly His Gly Lys 150 151

<210> 1432 <211> 514 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} 4400\text{> }1432\\ \text{Ser Ser Pro Ser Arg Glu Leu Cys Phe Tyr Gly Phe Trp Ile Ala Ser}\\ 1\\ 5\\ \text{Ser ITp Trp Ser Arg Trp Val Gly Ser Leu Gly Pro Gly Ile Leu Pro}\\ 20\\ 25\\ \text{Ser Pro Pro Ala Arg Gly Arg Thr Phe Ala Ser Val Ser Arg Leu Pro}\\ 35\\ \text{Pro Pro Trp Ser Ala Gly Ile Thr Leu Thr Pro Phe Leu Ile Cys Gln}\\ \end{array}$

```
55
Ser Gly Ser Val Cys Pro Gly Leu Gly Ala Gly Phe Gly Val Arg Ser
                   70
                                    75
 Phe His His Pro Val Ala Arg Ser Ala Val Leu Leu Leu Pro Leu Ala
 Pro Ala Ala Ala Gln Asp Ser Thr Gln Ala Ser Thr Pro Gly Ser Pro
                            105
Leu Ser Pro Thr Glu Tyr Glu Arg Phe Phe Ala Leu Leu Thr Pro Thr
                        120 125
 Trp Lys Ala Glu Thr Thr Cys Arg Leu Arg Ala Thr His Gly Cys Arg
                     135
                            140
Asn Pro Thr Leu Val Gln Leu Asp Gln Tyr Glu Asn His Gly Leu Val
                 150
                                   155
Pro Asp Gly Ala Val Cys Ser Asn Leu Pro Tyr Ala Ser Trp Phe Glu
              165
                     170
Ser Phe Cys Gln Phe Thr His Tyr Arg Cys Ser Asn His Val Tyr Tyr
                            185
Ala Lys Arg Val Leu Cys Ser Gln Pro Val Ser Ile Leu Ser Pro Asn
      195
               200
Thr Leu Lys Glu Ile Glu Ala Ser Ala Glu Val Ser Pro Thr Thr Met
                     215
Thr Ser Pro Ile Ser Pro His Phe Thr Val Thr Glu Arg Gln Thr Phe
                 230
                                    235
Gln Pro Trp Pro Glu Arg Leu Ser Asn Asn Val Glu Glu Leu Leu Gln
              245
                                250
Ser Ser Leu Ser Leu Gly Gly Gln Glu Gln Ala Pro Glu His Lys Gln
           260
                            265
Glu Gln Gly Val Glu His Arg Gln Glu Pro Thr Gln Glu His Lys Gln
                         280
295
                                       300
Gly Lys Gln Glu Glu Gly Gln Gly Thr Lys Glu Gly Arg Glu Ala Val
                 310
                                    315
Ser Gln Leu Gln Thr Asp Ser Glu Pro Lys Phe His Ser Glu Ser Leu
              325
                                330
Ser Ser Asn Pro Ser Ser Phe Ala Pro Arg Val Arg Glu Val Glu Ser
                            345
Thr Pro Met Ile Met Glu Asn Ile Gln Glu Leu Ile Arg Ser Ala Gln
                         360
Glu Ile Asp Glu Met Asn Glu Ile Tyr Asp Glu Asn Ser Tyr Trp Arg
                     375
                                       380
Asn Gln Asn Pro Gly Ser Leu Leu Gln Leu Pro His Thr Glu Ala Leu
                  390
                                    395
Leu Val Leu Cys Tyr Ser Ile Val Glu Asn Thr Cys Ile Ile Thr Pro
              405
                                410
Thr Ala Lys Ala Trp Lys Tyr Met Glu Glu Glu Ile Leu Gly Phe Gly
                            425
Lys Ser Val Cys Asp Ser Leu Gly Arg Arg His Met Ser Thr Cvs Ala
                         440
Leu Cys Asp Phe Cys Ser Leu Lys Leu Glu Gln Cys His Ser Glu Ala
                     455
                                       460
Ser Leu Gln Arg Gln Gln Cys Asp Thr Ser His Lys Thr Pro Phe Val
                 470
                                   475
Ser Pro Leu Leu Ala Ser Gln Ser Leu Ser Ile Gly Asn Gln Val Gly
              485
                                490
Ser Pro Glu Ser Gly Arg Phe Tyr Gly Leu Asp Leu Tyr Gly Gly Leu
                             505
His Met
```

<210> 1433 <211> 241 <212>Amino acid

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(241)
<223> X = any amino acid or stop code

<400> 1433 Val Ser Trp Val Pro Ser Lys Asp Gly Asp Val Glu Gly Ala Arg Arg Pro Phe Thr Arg Leu Asn Thr Ser Leu Gly Pro Gly Leu Gln Glu Gly 20 Arg Arg Arg Thr Trp Leu Val Pro Ile Pro Gly Ala Val Leu Pro Gly Arg Thr Gln Glu Gln Pro Arg Ala Ser Pro Leu Tyr Xaa Pro Gly Ala 60 Pro Pro Cys Gln Pro Gln Gly Leu Val Ala Gly Pro Trp Ala Gln Xaa 65 70 75 Ala Gly Leu Arg Ser Asp Gly Phe Gly Pro Trp Pro Trp Arg Leu Val 90 Gly Thr Ala Gly Pro Arg Glu Lys Lys Val Gln Lys Ser Lys Cys Trp 105 His Phe Arg Cys Gly Arg His Pro Ala Arg Arg Ser Gly Trp Ala Gly 120 125 Arg His Ala Ser Leu Leu Ala Thr Gly Arg Pro Cys Ser Ser Ala Pro 135 140 Ser Gln Gln Pro Leu Gly Thr Ala Gly Asp Ser Arg Gln Glu Leu Leu 150 155 Arg Pro Pro Leu Val Xaa Val Asn Gly Ala Gln Ser Ser Ala Ala Gly 165 170 Asp Trp Gly Ser Ser Pro Arg Thr Ala Gln Ala Leu Ala Arg Pro His 185 Arg Leu Gly His His Pro Ala Ala Val Ala Pro Ala Ala Arg Leu Arg 200 Thr Gln Ser Gly His Ser Pro Arg Gly Pro Leu Cys Arg Ser Pro Gly 215 220 Ser Pro Arg Arg Met Gly Thr Trp Arg Gly Pro Ala Gly His Ser His Asp 241

<210> 1434 <211> 127 <212>Amino acid <213> Homo sapiens

<210> 1435 <211> 182 <212>Amino acid <213> Homo sapiens

<400> 1435 Gly Glu Cys Phe Ile Met Ala Ala Val Val Gln Gln Asn Asp Leu Val 5 10 Phe Glu Phe Ala Ser Asn Val Met Glu Asp Glu Arg Gln Leu Gly Asp 25 Pro Ala Ile Phe Pro Ala Val Ile Val Glu His Val Pro Gly Ala Asp 40 Ile Leu Asn Ser Tyr Ala Gly Leu Ala Cys Val Glu Glu Pro Asn Asp 55 Met Ile Thr Glu Ser Ser Leu Asp Val Ala Glu Glu Glu Ile Ile Asp 70 75 Asp Asp Asp Asp Ile Thr Leu Thr Val Glu Ala Ser Cys His Asp 85 90 Gly Asp Glu Thr Ile Glu Thr Ile Glu Ala Ala Glu Ala Leu Leu Asn 100 105 Met Asp Ser Pro Gly Pro Met Leu Asp Glu Lys Arg Ile Asn Asn Asn 120 Ile Phe Ser Ser Pro Glu Asp Asp Met Val Val Ala Pro Val Thr His 135 140 Val Ser Val Thr Leu Asp Gly Ile Pro Glu Val Met Glu Thr Gln Gln 150 155 Val Gln Glu Lys Tyr Ala Asp Ser Pro Gly Ala Ser Ser Pro Glu Gln 165 170 Pro Lys Arg Lys Lys Lys 180

<210> 1436 <211> 154 <212>Amino acid <213> Homo sapiens

<210> 1437 <211> 63 <212>Amino acid <213> Homo sapiens

<210> 1438 <211> 140 <212>Amino acid <213> Homo sapiens

<400> 1438 Ala Glu Gly Glu Asp Val Pro Pro Leu Pro Thr Ser Ser Gly Asp Gly 10 Trp Glu Lys Asp Leu Glu Glu Ala Leu Glu Ala Gly Gly Cys Asp Leu 20 25 Glu Thr Leu Arg Asn Ile Ile Gln Gly Arg Pro Leu Pro Ala Asp Leu 40 Arg Ala Lys Val Trp Lys Ile Ala Leu Asn Val Ala Gly Lys Gly Asp Ser Leu Ala Ser Trp Asp Gly Ile Leu Asp Leu Pro Glu Gln Asn Thr Ile His Lys Asp Cys Leu Gln Phe Ile Asp Gln Leu Ser Val Pro Glu 90 Glu Lys Ala Ala Glu Leu Leu Leu Asp Ile Glu Ser Val Ile Thr Phe 100 105 Tyr Cys Lys Ser Arg Asn Ile Lys Tyr Ser Thr Ser Leu Ser Trp Ile 120 His Leu Leu Lys Pro Leu Val His Leu Gln Leu Pro 135

<210> 1439 <211> 84 <212>Amino acid <213> Homo sapiens

<210> 1440 <211> 255 <212>Amino acid <213> Homo sapiens

<400> 1440 Ala Met Ala Gln Tyr Gly His Pro Ser Pro Leu Gly Met Ala Ala Arg Glu Glu Leu Tyr Ser Lys Val Thr Pro Arg Arg Asn Arg Gln Gln Arg Pro Gly Thr Ile Lys His Gly Ser Ala Leu Asp Val Leu Leu Ser Met Gly Phe Pro Arg Ala Arg Ala Gln Lys Ala Leu Ala Ser Thr Gly Gly Arg Ser Val Gln Ala Ala Cys Asp Trp Leu Phe Ser His Val Gly Asp Pro Phe Leu Asp Asp Pro Leu Pro Arg Glu Tyr Val Leu Tyr Leu Arg 90 Pro Thr Gly Pro Leu Ala Gln Lys Leu Ser Asp Phe Trp Gln Gln Ser 1.05 Lys Gln Ile Cys Gly Lys Asn Lys Ala His Asn Ile Phe Pro His Ile 120 Thr Leu Cys Gln Phe Phe Met Cys Glu Asp Ser Lys Val Asp Ala Leu 135 Gly Glu Ala Leu Gln Thr Thr Val Ser Arg Trp Lys Cys Lys Phe Ser 150 155 Ala Pro Leu Pro Leu Glu Leu Tyr Thr Ser Ser Asn Phe Ile Gly Leu 170 Phe Val Lys Glu Asp Ser Ala Glu Val Leu Lys Lys Phe Ala Ala Asp 185 Phe Ala Ala Glu Ala Ala Ser Lys Thr Glu Val His Val Glu Pro His 200 Lys Lys Gln Leu His Val Thr Leu Ala Tyr His Phe Gln Ala Ser His 215 220 Leu Pro Thr Leu Glu Lys Leu Ala Gln Asn Ile Asp Val Lys Leu Gly 235

Cys Asp Trp Val Ala Thr Ile Phe Ser Arg Asp Ile Arg Phe Ala 245 250 250

<210> 1441 <211> 134 <212>Amino acid <213> Homo sapiens

. <400> 1441

Gln Thr Arg Pro Ala Ser Pro Arg Thr Ala Arg Glu Ser Val Leu Gly 10 Val Ser Gln Asn Met Ser Phe Asn Leu Gln Ser Ser Lys Lys Leu Phe 25 Ile Phe Leu Gly Lys Ser Leu Phe Ser Leu Leu Glu Ala Met Ile Phe 40 Ala Leu Leu Pro Lys Pro Arg Lys Asn Val Ala Gly Glu Ile Val Leu 55 Ile Thr Gly Ala Gly Ser Gly Leu Gly Arg Leu Leu Ala Leu Gln Phe 70 Ala Arg Leu Gly Ser Val Leu Val Leu Trp Asp Ile Asn Lys Glu Gly 90 Asn Glu Glu Thr Cys Lys Met Ala Arg Glu Ala Gly Ala Thr Arg Val 105 His Ala Tyr Thr Cys Asp Cys Ser Gln Lys Glu Gly Val Tyr Arg Val . 115 120 Ala Asp Gln Val Lys Lys

130 134

<210> 1442 <211> 155 <212>Amino acid <213> Homo sapiens

<400> 1442 Met Val Ala Arg Lys Gly Gln Lys Ser Pro Arg Phe Arg Arg Val Thr 10 Cys Phe Leu Arg Leu Gly Arg Ser Thr Leu Leu Glu Leu Glu Pro Ala 25 Gly Arg Pro Cys Ser Gly Arg Thr Arg His Arg Ala Leu His Arg Arg 40 Leu Val Ala Cys Val Thr Val Ser Ser Arg Arg His Arg Lys Glu Ala 55 Gly Arg Gly Arg Ala Glu Ser Phe Ile Ala Val Gly Met Ala Ala Pro 70 Ser Met Lys Glu Arg Gln Val Cys Trp Gly Ala Arg Asp Glu Tyr Trp Lys Cys Leu Asp Glu Asn Leu Glu Asp Ala Ser Gln Cys Lys Lys Leu 105 Arg Ser Ser Phe Glu Ser Ser Cys Pro Gln Gln Trp Ile Lys Tyr Phe 120 Asp Lys Arg Arg Asp Tyr Leu Lys Phe Lys Glu Lys Phe Glu Ala Gly 135 Gln Phe Glu Pro Ser Glu Thr Thr Ala Lys Ser

<210> 1443 <211> 157 <212>Amino acid <213> Homo sapiens

<400> 1443 Pro Ala Pro Ala Ala Arg Ser Arg Glu Leu Leu Lys Glu Leu Arg Asn 10 Gly Gln Asp Met Asp Thr Val Val Phe Glu Asp Val Val Val Asp Phe 2.0 Thr Leu Glu Glu Trp Ala Leu Leu Asn Pro Ala Gln Arg Lys Leu Tyr 40 Arg Asp Val Met Leu Glu Thr Phe Lys His Leu Ala Ser Val Asp Asn 55 Glu Ala Gln Leu Lys Ala Ser Gly Ser Ile Ser Gln Gln Asp Thr Ser 70 75 Gly Glu Lys Leu Ser Leu Lys Gln Lys Ile Glu Lys Phe Thr Arg Lys 90 Asn Ile Trp Ala Ser Leu Leu Gly Lys Asn Trp Glu Glu His Ser Val 105 Lys Asp Lys His Asn Thr Lys Glu Arg His Leu Ser Arg Asn Pro Arg 120 1.25 Val Glu Arg Pro Cys Lys Ser Ser Lys Gly Asn Lys Arg Gly Arg Thr 130 135 140 Phe Arg Lys Thr Arg Asn Cys Asn Arg His Leu Arg Arg 145 150 155 157

<210> 1444 <211> 53 <212>Amino acid <213> Homo sapiens

4400 1444 (cys Val Cys Gly Phe Phe Val Cys Phe Glu Thr Lys Ser Cys Phe Val la la Gly Val Gln Trp His Asn Leu Ser Ser Leu Gln Ala Leu 3 20 25 30 Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp 3 5 40 45 45 50 53

<210> 1445 <211> 106 <212>Amino acid

<213> Homo sapiens

<400> 1445

<210> 1446 <211> 95 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} < 400 > 1446 \\ \text{Asp Thr Met Gin Ala} \\ \text{Val Val Pro Leu Asn Lys Met Thr Ala Ile Ser} \\ 1 \\ \text{Pro Gil Pro Gin Thr Leu Ala Ser Thr Glu Gin Asn Glu Val Pro Arg} \\ \text{Val Val Thr Ser Gly Glu Gin Qiu Ala Ile Leu Arg Gly Asn Ala Ala} \\ \text{Asp Ala Glu Ser Phe Arg Gln Arg Phe Arg Trp Phe Cys Tyr Ser Glu} \\ \text{Asp Ala Glu Ser Phe Arg Gln Arg Phe Arg Trp Phe Cys Tyr Ser Glu} \\ \text{Val Ala Gly Pro Arg Lys Ala Leu Ser Gln Leu Trp Glu Leu Cys Asn} \\ \text{So} \\ \text{Gln Trp Leu Arg Pro Asp Ile His Thr Lys Glu Gln Ile Leu Glu} \\ \text{So} \\$

<210> 1447 <211> 127 <212>Amino acid <213> Homo sapiens

4400> 1447

Pro Ile Cys Leu Phe Ser Arg Pro Thr Leu Arg Pro Ser Arg Ser Lys 1

10 15
20 25

Phe Trp Cys Val Ser Val Thr Met Val Val Ala Leu Leu Ile Val Cys 35

Asp Val Pro Ser Ala Ser Ala Gin Arg Lys Lys Giu Met Val Leu Ser 50

Glu Lys Val Ser Gin Leu Met Giu Trp Thr Asn Lys Arg Pro Val Ile 65

Arg Met Asn Giy Asp Lys Phe Arg Arg Leu Val Lys Ala Pro Pro Arg 95

Asn Tyr Ser Val Ile Val Met Phe Thr Ala Leu Gin Leu His Arg Gin 100

105

Cys Val Val Cys Lys Tyr Glu Leu Gln Leu Arg Phe Lys Ile Lys 115 120 125 125

<210> 1448 <211> 143 <212>Amino acid <213> Homo sapiens

<400> 1448 Gln Met Arg Val Lys Asp Pro Thr Lys Ala Leu Pro Glu Lys Ala Lys 10 Arg Ser Lys Arg Pro Thr Val Pro His Asp Glu Asp Ser Ser Asp Asp 20 25 Ile Ala Val Gly Leu Thr Cys Gln His Val Ser His Ala Ile Ser Val 35 40 Asn His Val Lys Arg Ala Ile Ala Glu Asn Leu Tro Ser Val Cvs Ser 55 60 Glu Cys Leu Lys Glu Arg Arg Phe Tyr Asp Gly Gln Leu Val Leu Thr 70 75 Ser Asp Ile Trp Leu Cys Leu Lys Cys Gly Phe Gln Gly Cys Gly Lys 85 90 Asn Ser Glu Ser Gln His Ser Leu Lys His Phe Lys Ser Ser Arg Thr 105 Glu Pro His Cys Ile Ile Ile Asn Leu Ser Thr Trp Ile Ile Trp Trp 120 Tyr Glu Trp Asp Glu Lys Ile Phe Thr Pro Leu Asn Lys Lys Gly 140

<210> 1449 <211> 121 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(121)
<223> X = any amino acid or stop code

115 120 121

<210> 1450 <211> 76 <212>Amino acid <213> Homo sapiens

-400> 1450
Phe Tyr Pro Arg Ser Ser Ala Asp Leu Pro Phe Gln Thr Thr Arg Cys
1 10
1 10
1 10
1 10
1 10
1 10
1 10
1 10
1 10
1 10
1 20
2 25
3 10
3 10
1 20
2 30
2 25
3 10
1 20
1 25
3 10
2 10
1 20
1 20
2 30
2 20
2 30
2 30
2 45
2 45
Phe Slu Trp Leu Arg Phe Leu Asp Lys Val Leu Val Ala Ala Ala Asn Lys
5 5
5 6
6 10
1 55
5 6
6 10
1 57
Val Trp Tyr Cys Ser Phe Phe Pro Val Ala Leu Thr

<210> 1451 <211> 95 <212>Amino acid <213> Homo sapiens

70

<210> 1452 <211> 174 <212>Amino acid <213> Homo sapiens

Pro Ala Met Ser Ser Ser Arg Lys Asp His Leu Gly Ala Ser Ser Ser 55 Glu Pro Leu Pro Val Ile Ile Val Gly Asn Gly Pro Ser Gly Ile Cys 70 75 Leu Ser Tyr Leu Leu Ser Gly Tyr Thr Pro Tyr Thr Lys Pro Asp Ala . 85 90 Ile His Pro His Pro Leu Leu Gln Arg Lys Leu Thr Glu Ala Pro Gly 105 110 Val Ser Ile Leu Asp Gln Asp Leu Asp Tyr Leu Ser Glu Gly Leu Glu 120 Gly Arg Ser Gln Ser Pro Val Ala Leu Leu Phe Asp Ala Leu Leu Arg 135 Pro Asp Thr Asp Phe Gly Gly Asn Met Lys Ser Val Leu Thr Trp Lys 150 155 His Arg Lys Glu His Ala Ile Pro His Val Val Leu Gly Arg

<210> 1453 <211> 518 <212>Amino acid <213> Homo sapiens

<400> 1453 Asn Arg Arg Thr Arg Ala Gln Arg Cys Gln Arg Gly Arg Ser Cys Gly 10 Ala Arg Glu Glu Glu Val Glu Pro Gly Thr Ala Arg Pro Pro Pro Ala 25 Ala Ser Ala Met Asp Ala Ser Leu Glu Lys Ile Ala Asp Pro Thr Leu 40 Ala Glu Met Gly Lys Asn Leu Lys Glu Ala Val Lys Met Leu Glu Asp 5.5 Ser Gln Arg Arg Thr Glu Glu Glu Asn Gly Lys Lys Leu Ile Ser Gly 70 Asp Ile Pro Gly Pro Leu Gln Gly Ser Gly Gln Asp Met Val Ser Ile 85 Leu Gln Leu Val Gln Asn Leu Met His Gly Asp Glu Asp Glu Glu Pro 105 Gln Ser Pro Arg Ile Gln Asn Ile Gly Glu Gln Gly His Met Ala Leu 120 Leu Gly His Ser Leu Gly Ala Tyr Ile Ser Thr Leu Asp Lys Glu Lys 135 140 Leu Arg Lys Leu Thr Thr Arg Ile Leu Ser Asp Thr Thr Leu Trp Leu 155 Cys Arg Ile Phe Arg Tyr Glu Asn Gly Cys Ala Tyr Phe His Glu Glu 170 Glu Arg Glu Gly Leu Ala Lys Ile Cys Arg Leu Ala Ile His Ser Arg 185 Tyr Glu Asp Phe Val Val Asp Gly Phe Asn Val Leu Tyr Asn Lys Lys 200 Pro Val Ile Tyr Leu Ser Ala Ala Ala Arg Pro Gly Leu Gly Gln Tyr 215 Leu Cys Asn Gln Leu Gly Leu Pro Phe Pro Cys Leu Cys Arg Val Pro 230 235 Cys Asn Thr Val Phe Gly Ser Gln His Gln Met Asp Val Ala Phe Leu 245 250 Glu Lys Leu Ile Lys Asp Asp Ile Glu Arg Gly Arg Leu Pro Leu Leu 265 Leu Val Ala Asn Ala Gly Thr Ala Ala Val Gly His Thr Asp Lys Ile

280 Gly Arg Leu Lys Glu Leu Cys Glu Gln Tyr Gly Ile Trp Leu His Val 295 300 Glu Gly Val Asn Leu Ala Thr Leu Ala Leu Gly Tyr Val Ser Ser Ser 310 315 Val Leu Ala Ala Ala Lys Cys Asp Ser Met Thr Met Thr Pro Gly Pro 325 330 335 Trp Leu Gly Leu Pro Ala Val Pro Ala Val Thr Leu Tyr Lys His Asp 340 345 Asp Pro Ala Leu Thr Leu Val Ala Gly Leu Thr Ser Asn Lys Pro Thr 355 360 Asp Lys Leu Arg Ala Leu Pro Leu Trp Leu Ser Leu Gln Tyr Leu Gly 375 380 Leu Asp Gly Phe Val Glu Arg Ile Lys His Ala Cys Gln Leu Ser Gln 390 395 Arg Leu Gln Glu Ser Leu Lys Lys Val Asn Tyr Ile Lys Ile Leu Val 410 Glu Asp Glu Leu Ser Ser Pro Val Val Val Phe Arg Phe Phe Gln Glu 425 Leu Pro Gly Ser Asp Pro Val Phe Lys Ala Val Pro Val Pro Asn Met 440 Thr Pro Ser Gly Val Gly Arg Glu Arg His Ser Cys Asp Ala Leu Asn 455 Arg Trp Leu Gly Glu Gln Leu Lys Gln Leu Val Pro Ala Ser Gly Leu 475 470 Thr Val Met Asp Leu Glu Ala Glu Gly Thr Cys Leu Arg Phe Ser Pro 490 495 Leu Met Thr Ala Ala Gly Lys Pro Gly Leu Val Asp Ile Pro Cys Phe 500 505 Cys Ser Gly Ala Ala Gly

<210> 1454 <211> 185

<212>Amino acid <213> Homo sapiens

<400> 1454 Leu Cys Ile Met Asp Thr Lys Glu Glu Lys Lys Glu Arg Lys Gln Ser 1.0 Tyr Phe Ala Arg Leu Lys Lys Lys Gln Ala Lys Gln Asn Ala Glu Thr Ala Ser Ala Val Ala Thr Arg Thr His Thr Gly Lys Glu Asp Asn 40 Asn Thr Val Val Leu Glu Pro Asp Lys Cys Asn Ile Ala Val Glu Glu 55 Glu Tyr Met Thr Asp Glu Lys Lys Lys Arg Lys Ser Asn Gln Leu Lys 70 Glu Ile Arg Arg Thr Glu Leu Lys Arg Tyr Tyr Ser Ile Asp Asp Asn 90 Gln Asn Lys Thr His Asp Lys Lys Glu Lys Lys Met Val Val Gln Lys 105 110 Pro His Gly Thr Met Glu Tyr Thr Ala Gly Asn Gln Asp Thr Leu Asn 120 125 Ser Ile Ala Leu Lys Phe Asn Ile Thr Pro Asn Lys Leu Val Glu Leu 135 140 Asn Lys Leu Phe Thr His Thr Ile Val Pro Gly Gln Val Leu Phe Val 150 155 Pro Asp Ala Asn Ser Pro Ser Ser Thr Leu Arg Leu Ser Ser Ser Ser

175

Pro Gly Ala Thr Val Ser Pro Ser Ser 180 185

> <210> 1455 <211> 206

<212>Amino acid

<213> Homo sapiens

<400> 1455

Ser Ala Gly Gly Asp Ser Cys Arg Ala Val Pro Met Leu Arg Phe Pro 5 1.0 Thr Cys Phe Pro Ser Phe Arg Val Val Gly Glu Lys Gln Leu Pro Gln 20 Glu Ile Ile Phe Leu Val Trp Ser Pro Lys Arg Asp Leu Ile Ala Leu 40 Ala Asn Thr Ala Gly Glu Val Leu Leu His Arg Leu Ala Ser Phe His Arg Val Trp Ser Phe Pro Pro Asn Glu Asn Thr Gly Lys Glu Val Thr Cys Leu Ala Trp Arg Pro Asp Gly Lys Leu Leu Ala Phe Ala Leu Ala 90 Asp Thr Lys Lys Ile Val Leu Cys Asp Val Glu Lys Pro Glu Ser Leu 105 His Ser Phe Ser Val Glu Ala Pro Val Ser Cys Met His Trp Met Glu 120 Val Thr Val Glu Ser Ser Val Leu Thr Ser Phe Tyr Asn Ala Glu Asp 135 140 Glu Ser Asn Leu Leu Pro Lys Leu Pro Thr Leu Pro Lys Asn Tyr 150 155 Ser Asn Thr Ser Lys Ile Phe Ser Glu Glu Asn Ser Asp Glu Ile Ile 165 170 Lys Leu Leu Gly Asp Val Arg Leu Asn Ile Leu Val Leu Gly Gly Ser 185 Ser Gly Phe Ile Glu Leu Tyr Ala Tyr Gly Met Phe Lys Ile 200

<210> 1456 <211> 100 <212>Amino acid <213> Homo sapiens

<400> 1456

Pro Arg Asp Pro Val Thr Asp Arg Ala Arg Ala Met Pro Arg Arg Gly 1 1 5 10 15 Leu Val Ala Gly Pro Asp Leu Glu Tyr Phe Gln Arg His Tyr Phe Thr 20 Ala Glu Val Ala Gln His Asn Arg Pro Glu Asp Leu Trp Val Ser Tyr Leu Gly Arg Val Tyr Asp Leu Thr Ser Leu Ala Gln Glu Tyr Lys 50 60 Gly Asn Leu Leu Leu Lys Pro Ile Val Glu Val Ala Gly Gln Asp Ile 70 65 70 Ser His Trp Phe Asp Pro Lys Thr Arg Asp Val Ser Tyr Ala Gly Thr

85 90 95 Trp Asp Cys Gly 100

<210> 1457 <211> 159 <212>Amino acid <213> Homo sapiens

<400> 1457 Arg Ile Pro Gly Arg Arg Phe Arg Ala Ala Phe Val Leu Gly Ser Ala 1 10 Asn Val Ala Ser Ser Val Arg Leu Arg Cys Ser Phe Pro Leu Ser Leu 25 Gly Gly Pro Ser Gly Pro Ala Ala Ala Ser Val Ala Leu Gly Pro Ala Gly Pro Gly Arg Ser Leu Gly Arg Thr Pro Asp Thr Gly Asp Trp Glu 55 Met Asp Ser Val Ser Phe Glu Asp Val Ala Val Ala Phe Thr Gln Glu 70 75 Glu Trp Ala Leu Leu Asp Pro Ser Gln Lys Asn Leu Tyr Arg Asp Val 85 90 Met Gln Glu Ile Phe Arg Asn Leu Ala Ser Val Gly Asn Lys Ser Glu 100 105 Asp Gln Asn Ile Gln Asp Asp Phe Lys Asn Pro Gly Arg Asn Leu Ser 120 Ser His Val Val Glu Arg Leu Phe Glu Ile Lys Glu Gly Ser Gln Tyr 135 140 Gly Glu Thr Phe Ser Gln Asp Ser Asn Leu Asn Leu Asn Lys Ile 150

<210> 1458 <211> 154 <212>Amino acid <213> Homo sapiens

<400> 1458 Ser Leu Ser Leu Ser Val Ser Pro Phe Leu Arg Leu Ser Leu Gly Arg 10 Val Gly Gly Met Ala Glu Glu Met Glu Ser Ser Leu Glu Ala Ser Phe 25 Ser Ser Ser Gly Ala Val Ser Gly Ala Ser Gly Phe Leu Pro Pro Ala Arg Ser Arg Ile Phe Lys Ile Ile Val Ile Gly Asp Ser Asn Val Gly 55 Lys Thr Cys Leu Thr Tyr Arg Phe Cys Ala Gly Arg Phe Pro Asp Arg Thr Glu Ala Thr Ile Gly Val Asp Phe Arg Glu Arg Ala Val Glu Ile 85 90 Asp Gly Glu Arg Ile Lys Ile Gln Leu Trp Asp Thr Ala Gly Gln Glu 105 Arg Phe Arg Lys Ser Met Val Gln His Tyr Tyr Arg Asn Val His Ala 120 Val Val Phe Val Tyr Asp Met Thr Asn Met Ala Ser Phe His Ser Leu

140

130 135 Pro Ser Trp Ile Glu Glu Cys Lys Gln His 145 150 154

> <210> 1459 <211> 136 <212>Amino acid <213> Homo sapiens

<400> 1459 Arg Arg Fro Ser Pro Gly Ser Ile Val Ile Met Ala Ala Glu Ser Asp 1. 5 10 Val Leu His Phe Gln Phe Glu Gln Gln Gly Asp Val Val Leu Gln Lys 20 25 Met Asn Leu Leu Arg Gln Gln Asn Leu Phe Cys Asp Val Ser Ile Tyr 40 Ile Asn Asp Thr Glu Phe Gln Gly His Lys Val Ile Leu Ala Ala Cys 55 Ser Thr Phe Met Arg Asp Gln Phe Leu Leu Thr Gln Ser Lys His Val 70 75 Arg Ile Thr Ile Leu Gln Ser Ala Glu Val Gly Arg Lys Leu Leu 85 90 Ser Cys Tyr Thr Gly Ala Leu Glu Val Lys Arg Lys Glu Leu Leu Lys 100 105 Tyr Leu Thr Ala Ala Ser Tyr Leu Gln Met Val His Ile Ala Glu Lys 120 Arg Thr Glu Ala Phe Val Lys Phe

<210> 1460 <211> 219 <212>Amino acid <213> Homo sapiens

<400> 1460 Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala 10 Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro Thr Trp Pro Cys Ser Met Pro Pro Arg Arg Pro Trp Asp Arg Gln Ala Gly Thr Leu Gln Val Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser Val Ala Leu Ile Cys Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp 75 Gly Gln Val Gln Pro Lys Asp Val Pro Arg Ser Trp Glu His Gly Ser 90 Ser Pro Ala Trp Glu Pro Leu Glu Ala Glu Ala Arg Gln Gln Arg Asp 100 105 110 Ser Cys Gln Leu Val Leu Val Glu Ser Ile Pro Gln Asp Leu Pro Ser 120 125 Ala Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp Leu Gln 135 140 Leu Leu Asp Thr Ala Gln Glu Ser Val His Val Ala Ser Tyr Tyr Trp

145 150 150 155 160 Ser Leu Thr Gly Pro Asp Ile Gly Val Asn Asp Ser Ser Ser Gln Leu 165 Gly Glu Ala Leu Leu Gln Lys Leu Gln Gln Leu Leu Gly Arg Asn Ile 180 165 190 185 190 195 190 205 Asp Leu Gln Val Leu Gly Ala Arg Thr Ser Thr 195 200 205 Asp Leu Gln Val Leu Ala Ala Arg Gly Ala His 210 215

<210> 1461 <211> 80 <212>Amino acid <213> Homo sapiens

<210> 1462 <211> 176 <212>Amino acid <213> Homo sapiens

<400> 1462 Leu Gln Pro Leu Ser Ser Trp Glu Ser Ala Ser Glu Val Thr Arg Ser 5 10 Pro Val Ser Pro Glu Asp Val Lys Gln Ala Thr Ser Asn Phe Glu Asn 25 Leu Gln Lys Gln Leu Ala Arg Lys Met Lys Leu Pro Ile Phe Ile Ala 40 Asp Ala Phe Thr Ala Arg Ala Phe Arg Gly Asn Pro Ala Ala Val Cys 55 Leu Leu Glu Asn Glu Leu Asp Glu Asp Met His Gln Lys Ile Ala Arg 70 75 Glu Met Asn Leu Ser Glu Thr Ala Phe Ile Arg Lys Leu His Pro Thr 8.5 90 Asp Asn Phe Ala Gln Ser Ser Cys Phe Gly Leu Arg Trp Phe Thr Pro 100 105 Ala Ser Glu Val Pro Leu Cys Gly His Ala Thr Leu Ala Ser Ala Ala 120 125 Val Leu Phe His Lys Ile Lys Asn Met Asn Ser Thr Leu Thr Phe Val 135 740 Thr Leu Ser Gly Glu Leu Arg Ala Arg Arg Ala Glu Asp Gly Ile Val

<210> 1463 <211> 150 <212>Amino acid <213> Homo sapiens

<400> 1463 Ala Ala Asp Thr Met Gln Ser Asp Asp Val Ile Trp Asp Thr Leu Gly 5 10 Asn Lys Gln Phe Cys Ser Phe Lys Ile Arg Thr Lys Thr Gln Ser Phe 20 25 Cys Arg Asn Glu Tyr Ser Leu Thr Gly Leu Cys Asn Arg Ser Ser Cys 40 Pro Leu Ala Asn Ser Gln Tyr Ala Thr Ile Lys Glu Glu Lys Gly Gln 55 Cys Tyr Leu Tyr Met Lys Val Ile Glu Arg Ala Ala Phe Pro Arg Arg 70 Leu Trp Glu Arg Val Arg Leu Ser Lys Asn Tyr Glu Lys Ala Leu Glu 85 90 Glm Ile Asp Glu Asn Leu Ile Tyr Trp Pro Arg Phe Ile Arg His Lys 100 105 Cys Lys Gln Arg Phe Thr Lys Ile Thr Gln Tyr Leu Ile Arg Ile Arg 120 Lys Leu Thr Leu Lys Arg Gln Arg Lys Leu Val Pro Leu Ser Lys Lys 1.35 Val Glu Arg Arg Glu Lys 145 150

<210> 1464 <211> 86 <212>Amino acid <213> Homo sapiens

4400> 1464

1 5 10 Arg Gly Leu Gly Asp Pro Ala Leu Pro Thr Leu Met Phe 10 10 15 Glu Glu Pro Glu Trp Ala Glu Ala Ala Pro Val Ala Ala Gly Leu Gly 20 25 30 30 20 Pro Val 11e Ser Arg Pro Pro Pro Ala Ala Ser Ser Gln Asn Lys Val 35 Ser Asp Ser Arg Glu Gln Trp Glu Leu Pro Gln Ala Ala Lys Arg Thr 50 60 Leu Val Ala Pro Ser Ala Val Cys Ile Ala Gly Arg Asp Thr Cys Gly Gly Val Lys Gly Glu Ser 86 86

<210> 1465 <211> 286 <212>Amino acid

<213> Homo sapiens

<400> 1465 Val Val Glu Phe Leu Trp Ser Arg Arg Pro Ser Gly Ser Ser Asp Pro 5 10 Arg Pro Arg Arg Pro Ala Ser Lys Cys Gln Met Met Glu Glu Arg Ala 2.0 25 Asn Leu Met His Met Met Lys Leu Ser Ile Lys Val Leu Leu Gln Ser Ala Leu Ser Leu Gly Arg Ser Leu Asp Ala Asp His Ala Pro Leu Gln Gln Phe Phe Val Val Met Glu His Cys Leu Lys His Gly Leu Lys Val Lys Lys Ser Phe Ile Gly Gln Asn Lys Ser Phe Phe Gly Pro Leu Glu 90 Leu Val Glu Lys Leu Cys Pro Glu Ala Ser Asp Ile Ala Thr Ser Val 105 Arg Asn Leu Pro Glu Leu Lys Thr Ala Val Gly Arg Gly Arg Ala Trp 120 Leu Tyr Leu Ala Leu Met Gln Lys Lys Leu Ala Asp Tyr Leu Lys Val 135 Leu Ile Asp Asn Lys His Leu Leu Ser Glu Phe Tyr Glu Pro Glu Ala 150 155 Leu Met Met Glu Glu Glu Gly Met Val Ile Val Gly Leu Leu Val Gly 165 170 Leu Asn Val Leu Asp Ala Asn Leu Cys Leu Lys Gly Glu Asp Leu Asp 180 185 Ser Gln Val Gly Val Ile Asp Phe Ser Leu Tyr Leu Lys Asp Val Gln 200 Asp Leu Asp Gly Gly Lys Glu His Glu Arg Ile Thr Asp Val Leu Asp 215 220 Gln Lys Asn Tyr Val Glu Glu Leu Asn Arg His Leu Ser Cys Thr Val 230 235 . 240 Gly Asp Leu Gln Thr Lys Ile Asp Gly Leu Glu Lys Thr Asn Ser Lys 245 250 Leu Gln Glu Arg Val Ser Ala Ala Thr Asp Arg Ile Cys Ser Leu Gln 265 Glu Glu Gln Gln Gln Leu Arg Glu Gln Asn Glu Leu Ile Arg 280

<210> 1466 <211> 127 <212>Amino acid <213> Homo sapiens

65 70 75 80 Arg His Ser Arg Ala Pro Leu Gly Leu Gln Gly Leu Arg Met Ala Ala 95 Ser Ala Gln Val Ser Val Thr Phe Glu Asp Val Ala Val Thr Phe Thr 100 105 110 110 115 115 120 125 127 125 127

<210> 1467 <211> 146 <212>Amino acid <213> Homo sapiens

<400> 1467 Phe Arg Gly Ser Leu Ser Ser Pro Ser Ser Leu Arg Gly Arg Arg Leu 5 10 15 Val Thr Gly Gln Thr Ser Pro Arg Gly Thr Trp Cys Leu Tyr Pro Gly 25 Phe Cys Arg Ser Val Ala Cys Ala Met Pro Cys Cys Ser His Arg Ser 40 Cys Arg Glu Asp Pro Gly Thr Ser Glu Ser Arg Glu Met Asp Pro Val 55 Val Phe Glu Asp Val Ala Val Asn Phe Thr Gln Glu Glu Trp Thr Leu 70 75 Leu Asp Ile Ser Gln Lys Asn Leu Phe Arg Glu Val Met Leu Glu Thr 90 95 85 Phe Arg Asn Leu Thr Ser Ile Gly Lys Lys Trp Ser Asp Gln Asn Ile 100 105 110 Glu Tyr Glu Tyr Gln Asn Pro Arg Arg Ser Phe Arg Ser Leu Ile Glu 115 120 . 125 Glu Lys Val Asn Glu Ile Lys Glu Asp Ser His Cys Gly Glu Thr Phe 135 Thr Gln 145 146

<210> 1468 <211> 44 <212>Amino acid <213> Homo sapiens

<210> 1469 <211> 198 <212>Amino acid <213> Homo sapiens

<400> 1469 Ser Gly Asp Leu Ser Pro Ala Glu Leu Met Met Leu Thr Ile Gly Asp 15 Val Ile Lys Gln Leu Ile Glu Ala His Glu Gln Gly Lys Asp Ile Asp 25 Leu Asn Lys Val Lys Thr Lys Thr Ala Ala Lys Tyr Gly Leu Ser Ala Gln Pro Arg Leu Val Asp Ile Ile Ala Ala Val Pro Pro Gln Tyr Arg Lys Val Leu Met Pro Lys Leu Lys Ala Lys Pro Ile Arg Thr Ala Ser 75 Gly Ile Ala Val Val Ala Val Met Cys Lys Pro His Arg Cys Pro His 85 90 Ile Ser Phe Thr Gly Asn Ile Cys Val Tyr Cys Pro Gly Gly Pro Asp 105 Ser Asp Phe Glu Tyr Ser Thr Gln Ser Tyr Thr Gly Tyr Glu Pro Thr 120 125 Ser Met Arg Ala Ile Arg Ala Arg Tyr Asp Pro Phe Leu Gln Thr Arg 135 His Arg Ile Glu Gln Leu Lys Gln Leu Gly His Ser Val Asp Lys Val 150 155 Glu Phe Ile Glu Met Gly Gly Thr Phe Met Ala Leu Pro Glu Glu Tyr 165 170 Arg Asp Tyr Phe Ile Arg Asn Leu His Asp Ala Leu Ser Gly His Thr 180 Ser Asn Asn Ile Tyr Glu 195 198

<210> 1470 <211> 178 <212>Amino acid <213> Homo sapiens

<400> 1470 Trp Glu Ser Asp Val Gly Glu Gly Leu Arg Pro Pro Pro Pro Pro Pro 10 Pro Pro Gly Arg Arg Arg Thr Gln Glu Pro Arg Ala Arg Asp Ala Ala 25 Thr Val Ile Phe Ala Cys Pro Ala Ala Leu Leu Glu Thr Leu Ile Ala 40 Tyr Gly Ser Ser Ser Pro Ser Phe Cys Lys His Arg Ala Ala Arg Pro 55 Leu Ile Phe Leu Leu His Arg Leu Thr Ala Glu Ala Thr Ala Arg Cys 70 Pro Ile Cys Ala Leu Glu Ala Arg Asn Pro Gly Arg Trp Gly Ile Cys 90 Ala Ser Trp Pro Gly Met Lys Thr Pro Phe Gly Lys Ala Ala Ala Gly 700 105 Gln Arg Ser Arg Thr Gly Ala Gly His Gly Ser Val Ser Val Thr Met 120 125 Ile Lys Arg Lys Ala Ala His Lys Lys His Arg Ser Arg Pro Thr Ser 135 140 Gln Pro Arg Gly Asn Ile Val Gly Cys Ile Ile Gln His Gly Trp Lys 150 155 Asp Gly Asp Glu Pro Leu Thr Gln Trp Lys Gly Thr Val Leu Asp Gln

165 170 175

Leu Leu 178

> <210> 1471 <211> 253 <212>Amino acid <213> Homo sapiens

<400> 1471 Arg Asp Leu Gly Val Ala Leu Glu Ala Phe Gln Trp Ala Arg Ala Gly 5 Asp Cys Gly Ser Gly Ala Gly Arg Ala Gly Gly Glu Gly Val Asp Ala 20 25 Gly Arg Arg Val Pro Glu Arg Gln His Arg Gly Arg Gly Gly Gly 35 40 Glu Pro Gly Arg Arg Gln Arg Gly Gly Arg Arg Gln Arg Ser Ser Ser 55 Arg Arg Ser Gly Gly Asp Gly Asp Glu Val Glu Gly Ser Gly Val 70 75 Gly Ala Gly Glu Gly Glu Thr Val Gln His Phe Pro Leu Ala Arg Pro 90 Lys Ser Leu Met Gln Lys Leu Gln Cys Ser Phe Gln Thr Ser Trp Leu 105 110 100 Lys Asp Phe Pro Trp Leu Arg Tyr Ser Lys Asp Thr Gly Leu Met Ser 115 120 125 125 Cys Gly Trp Cys Gln Lys Thr Pro Ala Asp Gly Gly Ser Val Asp Leu 135 140 Pro Pro Val Gly His Asp Glu Leu Ser Arg Gly Thr Arg Asn Tyr Lys 150 155 Lys Thr Leu Leu Leu Arg His His Val Ser Thr Glu His Lys Leu His 165 170 Glu Ala Asn Ala Gln Glu Ser Glu Ile Pro Ser Glu Glu Gly Tyr Cys 185 Asp Phe Asn Ser Arg Pro Asn Glu Asn Ser Tyr Cys Tyr Gln Leu Leu 200 Arg Gln Leu Asn Glu Gln Arg Lys Lys Gly Ile Leu Cys Asp Val Ser 215 220 Ile Val Val Ser Gly Lys Ile Phe Lys Ala His Lys Asn Ile Leu Val 230 235 Ala Gly Ser Arg Phe Phe Lys Thr Leu Tyr Cys Phe Ser 245 250

<210> 1472 <211> 147 <212>Amino acid <213> Homo sapiens

 $^{<400>}$ 1472 Ser Leu Arg Ala Ala Ala Ala Ala Met Ala Asp Val Thr Ala Arg Ser Leu 1 $_{\rm 10}$ $_{\rm 15}$ Gln Tyr Glu Tyr Lys Ala Asn Ser Asn Leu Val Leu Gln Ala Asp Arg 25 $_{\rm 20}$ Ser Leu Ile Asp Arg Thr Arg Arg Asp Glu Pro Thr Gly Glu Val Leu

```
Ser Leu Val Gly Lys Leu Glu Gly Thr Arg Met Gly Asp Lys Ala Gln
                      55
                                         60
Arg Thr Lys Pro Gln Met Gln Glu Glu Arg Arg Ala Lys Arg Arg Lys
                  70
                                      75
Arg Asp Glu Asp Arg His Asp Ile Asn Lys Met Lys Gly Tyr Thr Leu
                                  90
Leu Ser Glu Gly Ile Asp Glu Met Val Gly Ile Ile Tyr Lys Pro Lys
          100
                            105
Thr Lys Glu Thr Arg Glu Thr Tyr Glu Val Leu Leu Ser Phe Ile Gln
                        120
                                      1.25
Ala Ala Leu Gly Asp Gln Pro Arg Asp Ile Leu Cys Gly Ala Ala Asp
                     1.35
Glu Val Leu
145 147
```

<210> 1473 <211> 139 <212>Amino acid

<213> Homo sapiens

<400> 1473 Cys Asn Ser Ala Glu Ser Arg Met Asp Val Leu Phe Val Ala Ile Phe 5 10 Ala Val Pro Leu Ile Leu Gly Gln Glu Tyr Glu Asp Glu Glu Arg Leu 25 Gly Glu Asp Glu Tyr Tyr Gln Val Val Tyr Tyr Tyr Thr Val Thr Pro 35 40 Ser Tyr Asp Asp Phe Ser Ala Asp Phe Thr Ile Asp Tyr Ser Ile Phe 55 Glu Ser Glu Asp Arg Leu Asn Arg Leu Asp Lys Asp Ile Thr Glu Ala 70 75 Ile Glu Thr Thr Ile Ser Leu Glu Thr Ala Arg Ala Asp His Pro Lys 85 Pro Val Thr Val Lys Pro Val Thr Thr Glu Pro Gln Ser Pro Asp Leu 100 105 Asn Asp Ala Val Ser Ser Leu Arg Ser Pro Ile Pro Leu Leu Leu Ser 120 Cys Ala Phe Val Gln Val Gly Met Tyr Phe Met 135

<210> 1474 <211> 185 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(185)

<223> X = any amino acid or stop code

<400> 1474
Phe Val Arg Gly Pro Gly Glu Glu Gln Ala Pro Ala Phe Arg Lys Pro
1 5 10 15

Ala Pro Gly Ala Met Gly Ala Gln Val Arg Leu Pro Pro Gly Glu Pro 25 Cys Arg Glu Gly Tyr Val Leu Ser Leu Val Cys Pro Asn Ser Ser Gln 4.0 Ala Trp Cys Glu Ile Thr Asn Val Ser Gln Leu Leu Ala Ser Pro Val 55 Leu Tyr Thr Asp Leu Asn Tyr Ser Ile Asn Asn Leu Ser Ile Ser Ala 70 75 Asn Val Glu Asn Lys Tyr Ser Leu Tyr Val Gly Leu Val Leu Ala Val 85 90 Ser Ser Ser Ile Phe Ile Gly Ser Ser Phe Ile Leu Lys Lys Lys Gly 100 Leu Leu Gln Leu Ala Ser Lys Gly Phe Thr Arg Ala Gly Gln Gly Gly 120 125 His Ser Tyr Leu Lys Glu Trp Leu Trp Trp Val Gly Leu Leu Ser Ile 135 140 Leu Ser Trp Asn Ala Arg Glu Lys Val Asp Leu Xaa Asn Ile Thr Phe 155 150 Kaa Pro Gln Thr Ser Cys Ile Phe Phe Thr Ile Thr Ile Glu Lys Ser 170 165 Thr Phe Leu Ser Tyr Phe Pro Thr Ser 180 185

<210> 1475 <211> 91 <212>Amino acid <213> Homo sapiens

<210> 1476 <211> 159 <212>Amino acid <213> Homo sapiens

Gln Lys Pro Gly Gly Thr Val Ile Leu Gly Cys Val Val Glu Pro Pro 55 Arg Met Asn Val Thr Trp Arg Leu Asn Gly Lys Glu Leu Asn Gly Ser 70 75 Asp Asp Ala Leu Gly Val Leu Ile Thr His Gly Thr Leu Val Ile Thr 85 90 Ala Leu Asn Asn His Thr Val Gly Arg Tyr Gln Cys Val Ala Arg Met 105 Pro Ala Gly Ala Val Ala Ser Val Pro Ala Thr Val Thr Leu Ala Ser 120 Glu Ser Ala Pro Leu Pro Pro Cys His Gly Ala Val Pro Pro His Leu 135 140 Ser His Pro Glu Ala Pro Thr Ile His Ala Ala Ser Cys Tyr Ser 150 155

<210> 1477 <211> 139 <212>Amino acid <213> Homo sapiens

<400> 1477 Trp Gly Arg Arg Arg Gln Leu Val Ser Glu Ala Ala Arg Ala Gln Gly Asp Pro Val Cys Ser Thr Met Ser Glu Glu Glu Ala Ala Gln Ile Pro 25 30 Arg Ser Ser Val Trp Glu Gln Asp Gln Gln Asn Val Val Gln Arg Val 40 Val Ala Leu Pro Leu Val Arg Ala Thr Cys Thr Ala Val Cys Asp Val 55 60 Tyr Ser Ala Ala Lys Asp Arg His Pro Leu Leu Gly Ser Ala Cys Arg 70 75 Leu Ala Glu Asn Cys Val Cys Gly Leu Thr Thr Arg Ala Leu Asp His 85 90 Ala Gln Pro Leu Leu Glu His Leu Gln Pro Gln Leu Ala Thr Met Asn 3.00 105 Ser Leu Ala Cys Arg Gly Leu Asp Lys Leu Glu Glu Lys Leu Pro Phe 120 Leu Gln Gln Pro Ser Glu Thr Val Val Thr Ser 135

<211> 331
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(331)
<223> X = any amino acid or stop code

<210> 1478

 $^{\sim}$ 400> 1478 Ala Lys Ala Phe Thr Met Ala Glu Ser Pro Gly Cys Cys Ser Val Trp 1 5 Ala Arg Cys Leu His Cys Leu Tyr Ser Cys His Trp Arg Lys Cys Pro

			20					25					30		
Arg	Glu	Arg 35	Met	Gln	Thr	Ser	Lys 40			Cys	Ile	Trp			Leu
Leu	Phe 50	Leu	Thr	Phe	Leu	Leu 55	Ser	Leu	Ser	Trp	Leu 60	Tyr	Ile	Gly	Leu
Val 65	Leu	Leu	Asn	Asp	Leu 70	His	Asn	Phe	Asn	Glu 75	Phe	Leu	Phe	Arg	Arg 80
Trp	Gly	His	Trp	Met 85	Asp	Trp	Ser	Leu	Ala 90	Phe	Leu	Leu	Val	Ile 95	Ser
Leu	Leu	Gly	Thr 100	Tyr	Ala	Ser	Leu	Leu 105	Leu	Val	Leu	Ala	Leu 110	Leu	Leu
Arg	Leu	Cys 115	Arg	Gln	Pro	Leu	His 120	Leu	His	Ser	Leu	His 125	Lys	Val	Leu
	Leu 130					135					140		-		-
145	Gln				150					155					160
	Arg			165					170					175	
	Gly		180					185				-	190		
	Ala	195					200				-	205			
	Trp 210					215					220				
225	Ile				230				_	235					240
	Ala			245					250					255	-
	Pro		260					265					270		
	Pro	275					280					285		-	-
	Thr 290					295					300				
305	Leu				310					315	Thr	Asn	Val		Ser 320
Val	Phe	Pro	Thr	Arg 325	Ile	Thr	Ala	His	Ser 330						